

**NO ILLUSIONS: THE ROLE OF AIR STRIKES IN
COERCIVE DIPLOMACY**

**A MONOGRAPH
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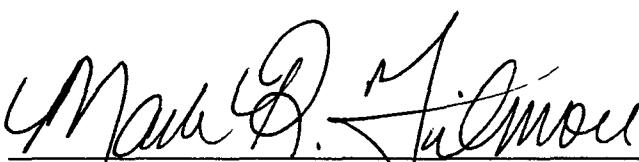
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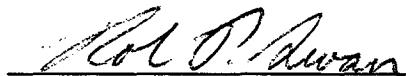
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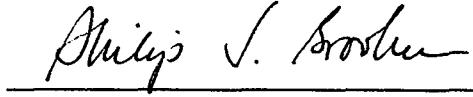
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ABSTRACT

NO ILLUSIONS: THE ROLE OF AIR STRIKES IN COERCIVE DIPLOMACY by MAJ David W. Angle, USAF, 67 pages.

The post Cold War era has seen an increase in international violence and internal conflicts ignited by nationalism, separatist ethnic groups and religious fundamentalism. As the world's only superpower, the United States has been pressured to intervene more frequently in the affairs of other states to maintain an international environment favorable to its national interests.

In an effort to minimize the amount of resources expended and lives put at risk, the United States has increasingly resorted to a strategy of coercive diplomacy. This involves threats of force or the limited use of force in conjunction with diplomatic efforts to coerce an adversary to stop or undo an act of aggression. This monograph addresses the role of air strikes in coercive diplomacy.

Coercive diplomacy is not a panacea that will solve all international crises, but it does provide the chance to achieve political objectives with little or no bloodshed and less financial, political, and psychological costs. Historically naval forces have been employed more often than other elements for coercive diplomacy. In more recent years, this gunboat diplomacy has given way to air strike diplomacy. Airpower is now used more frequently for coercive diplomacy because it is faster to employ, can have a tremendous shock effect, can put targets at risk with a high probability of successful attack using precision munitions, and can be more temporary in nature than other military options.

It is difficult to assess the effectiveness of coercive air strikes because international affairs are complex and there are multiple factors at work that affect the outcome of a crisis. Experts can point to incidents where coercive airpower was successful and incidents where it was not. When certain conditions are present in a crisis, the outcome is more likely to be favorable to the coercer. It is often difficult to determine when these conditions exist, let alone when they favor the coercer. Thus, adopting a strategy of coercive diplomacy and especially employing coercive air strikes is very risky. The greatest risk is that the opponent may have stronger motivation to resist than the coercer. This forces the coercer to either escalate military actions or concede to the opponent.

The key to successful employment of coercive air strikes is determining if conditions are favorable to their use and then attacking the adversary's military strategy. Historically, airpower advocates have tried to defeat opponents using strategic campaigns by targeting the opponent's leadership and the will of the civilian population. Some experts now argue that the best way to employ airpower in a strategy of coercive diplomacy is to attack the opponent's fielded military forces and deny the opponent the ability to achieve his military and political objectives.

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Chapter One

INTRODUCTION

In T.H. White's classic tale of the young King Arthur, *The Sword in the Stone*, Merlin the Magician educates Arthur on world affairs by turning Arthur into different animals to learn lessons from the animal kingdom. During one such lesson, Arthur learns about what it means to be a king with absolute power from Old Jack, the very large barracuda that rules the moat surrounding Arthur's castle. Merlin turns Arthur and himself into small fish and they swim down to talk to Old Jack. They approach Old Jack cautiously, since he has been known to have a temper and devours anything that makes him angry. Arthur timidly asks Old Jack to tell him about power, to which Old Jack replies,

"There is nothing, except the power that you profess to seek: power to grind and power to digest, power to seek and power to find, power to await and power to claim, all power and pitilessness springing from the nape of the neck. Love is a trick played on us by the forces of evolution. Pleasure is the bait laid down by the same. There is only power. Power is of the individual mind, but the mind's power alone is not enough. The power of strength decides everything in the end, and only Might is right."¹

Old Jack thereafter urges Arthur to leave quickly before he becomes a snack for the King of the Moat, so they depart quickly and Merlin changes Arthur and himself back into human form to end the day's lesson.

Arthur's lesson about absolute power has utility even today in the world of international politics, especially in today's post-Cold War era. The United States, as the world's only superpower, has increasingly found itself in a position of balancing diplomatic efforts and the use of military power to maintain world peace and achieve its political objectives. More often than not, the United States has had to resort to flexing its military might to ensure the world situation is balanced in its favor.

Political scientists and military theorists have studied the use of military force to achieve political objectives and have developed several schools of thought on diplomacy and the use of force. One such school terms this mix of diplomacy and military force "coercive diplomacy." In more recent years, much thought has been devoted to determining the effectiveness of the use of airpower as a tool for coercive diplomacy. Depending on who you believe, Operation Desert Fox, the December 1998 cruise missile and fixed wing air campaign against Iraq, was either a great success or a multi-million dollar wasted effort.

These recent air strikes have added more fuel to the heated debates about the utility of air strikes as tool of coercive diplomacy.

This monograph answers the question, "Do air strikes work as a tool for coercive diplomacy?" In so doing, it uses as evaluation criteria certain conditions that favor the use of coercive diplomacy. These conditions, highlighted by American political scientist Alexander George, include the clarity of the objective, the strength of motivation, the asymmetry of motivation, the sense of urgency as perceived by the opponent, the presence of adequate domestic and international support, the opponent's fear of unacceptable escalation and the clarity concerning the precise terms of settlement of the crisis.² These will be discussed in greater detail later in the paper.

Chapter Two describes why a coercive strategy is needed, defines the strategy of coercive diplomacy and the military options available to support it, and introduces the concept of coercive air strikes as a component of coercive diplomacy that has been used frequently in recent years. Chapter Three narrowly



Figure 1. Bosnian Serb Leader Radovan Karadžić Looks Warily at the Skies During NATO Air Operations. Photo by Oleg St. Jepanovic, Associated Press, Reprinted from "Louder Than Words", by Kevin Fedarko, *TIME Magazine*, 11 September 1995, 24-41.

focuses on the aspect of coercive air strikes and cites examples of where air strikes have worked in the past and where they have not in an attempt to identify conditions that lead to the successful use of coercive air strikes. Chapter Four looks at targeting for coercive effects. Chapter Five then looks at the application of coercive air strikes to help resolve current crises in areas such as Iraq and Kosovo by examining the contextual variables and contextual factors of each crisis. Finally, Chapter Six discusses the conclusions and implications of the use of coercive air strikes to resolve future crises.

Chapter Two

CONCEPTS OF COERCIVE DIPLOMACY

Diplomacy is the art of saying 'nice doggie' until you can find a rock.
Will Rogers

This chapter explains why a coercive strategy is needed, defines what coercive diplomacy is and discusses the theory and strategy of coercive diplomacy. It then describes the conditions that favor the use of coercive diplomacy, explains briefly the military options available to support coercive diplomacy, and then introduces the concept of coercive air strikes as a component of coercive diplomacy.

Why Is Coercive Military Strategy Needed?

Stephen Cimbala, in his book *Coercive Military Strategy*, writes about the need for a coercive military strategy that includes more than just coercive diplomacy. It is a strategy that seeks to employ “deliberately calibrated means” to accomplish political objectives while being able to adjust to changing situations.³ Besides including a mixture of diplomatic and military actions, Cimbala’s definition of coercive military strategy also includes deterrence and the use of conventional military actions.⁴ There are many reasons why we have a coercive strategy that is increasingly being used. They include the uncertain nature of the post-Cold War environment, the specifics of our national security strategy to deal with the uncertainty and protect American interests, and trends in liberal interventionism caused by public and political pressures on the president and his administration.

The post-Cold War environment is one in which the balance of power has been upset because of the collapse of the Soviet Union. Political scientist Richard Haass writes that the features of the post-Cold War include the splitting up of blocs that have resulted in the loss of political control of proxy nations by the United States and the Soviet Union.⁵ Moreover, he says, with the relaxation of external threats and alliance systems, and the erosion of both empire and multi-national states, nationalism has entered a new phase. Movements are now defined more by ethnicity than political ideology or territory and by the emergence of more internal conflicts. Traditional great power politics has been revived, with powerful states in several

regions are increasingly able to challenge the United States. With the information revolution, it has become more difficult for governments to control the information flow and resultant knowledge base of its citizens, leading to a relative weakening of the power that the nation-state holds on its population. New military technologies, such as theater ballistic missile systems and weapons of mass destruction, have created greater potential for regional instability. Haass states that the result of these developments is that we are in a period of “international deregulation, with new players, new capabilities, and new alignments, but as of yet, no new rules.”⁶

Political scientist Lynn E. Davis argues that dominant conflicts of this period involve violence within states among ethnic and religious groups seeking autonomy and independence. Political solutions to such conflicts are very difficult to arrive at because rival groups are unwilling to stop fighting short of achieving their goals. Any outside intervention to bring peace carries high risks and a low probability of success.⁷

In this post-Cold War environment, the United States National Security Strategy attempts to address this uncertain and highly volatile world by promoting a strategy of engagement and world leadership. The three core objectives of this strategy are “to enhance our security, to bolster America’s economic prosperity and to promote democracy abroad.”⁸ The strategy identifies the security environment of today as “dynamic and uncertain, replete with a host of threats and challenges that have the potential to grow more deadly, but also offering unprecedented opportunities to avert those threats and advance our interests.” It mentions that the accelerated integration of economic, technological, cultural and political aspects of the modern world has meant that the United States will become more affected by events outside the United States borders. Outlaw states and ethnic conflicts can threaten regional stability and economic progress, and have to be dealt with. Because of the increasing integration and linkage of all entities in the global environment, the United States has a “direct stake in the prosperity and stability of other nations.”⁹ For these reasons, the United States strategic approach is that it “must lead abroad if we are to be secure at home... and be prepared to use all appropriate instruments of national power to influence the actions of other states and non-state actors... the alternative to engagement is not withdrawal from the world; it is passive submission to powerful forces of change.”¹⁰

The national security strategy appears to support the arguments of some political scientists who say that since the principle incentives for restrained behavior have been removed (i.e., the Soviet Union), the United States has a greater disposition to intervene in the developing world.¹¹ Increasingly, there are times when the United States has no choice in whether to intervene or not. Author Thomas A. Bailey, in his book *The Art of Diplomacy*, furthers the idea that having power imposes responsibilities to use it. “From those to whom much has been given, much is expected. When a nation becomes powerful and wealthy, it is supposed to help less favored neighbors and use its power for the betterment of all peoples... Great nations must act greatly in response to recurring crises or they abandon greatness... Just as nobility imposes obligations (*noblesse oblige*), power imposes obligations (*puissance oblige*), as do riches (*richesse oblige*).”

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March Peceny and Shannon Sanchez-Terry expand on this idea when they write in the *Journal of Conflict Studies* that the pattern of United States involvement in Bosnia is an example of how “American liberalism has both compelled (the United States) to act, yet constrained (it) from taking decisive action.” They describe a pattern of “liberal interventionism” in which the conflicting dynamics of the United States political system have led to a distinct pattern of military intervention caused by public opinion and pressure from the political opposition that leads presidents to do whatever they can short of war to demonstrate that they are responding to a particular crisis. They further say that presidents are quick to take action even if they think their limited actions are unlikely to resolve the crisis. If the president happens to be lucky then the diplomacy, economic sanctions and threat of force might achieve limited progress or preserve a stalemate, even if it doesn’t result in a solution to the crisis. However, having staked United States resources and prestige on achieving solutions, it becomes more difficult and costly to disengage from a situation when it appears a substantial commitment of United States military power may be necessary to resolve the crisis. Thus, as Peceny and Sanchez-Terry point out, short-term political calculations encourage presidents to gradually escalate United States involvement in a crisis and then step away from the brink when it appears force might be needed to achieve a solution. They conclude that simultaneous domestic pressures to do something about Bosnia, yet not risk the lives of United States soldiers, led the administration to call for air strikes as its low-cost strategy for addressing the crisis.¹³ While Peceny and Sanchez-Terry were focused on

the United States intervention in Bosnia, their comments have applicability to situations in other parts of the world where the United States has tried to use very measured amounts of force and diplomacy to carry out foreign policy directives.

Stephen J. Cimbala also provides some insights into why coercive military strategy is important in the post-Cold War world. He lists several reasons, primarily the fact that there has been a steady increase in the number of peacekeeping operations that require the minimum use of force (he calls it using a "velvet glove clothing a mailed fist"), and the increase in smaller conventional and civil wars that call for intervention strategies and military capabilities that are more discriminating in their military effects.¹⁴

Coercive Diplomacy Defined

This paper focuses on the coercive diplomacy aspects of a coercive military strategy. There is a significant amount of literature that discusses the field of coercive diplomacy and the use of military force without actually going to war. One of the preeminent American political scientists in this field, Alexander L. George, has been studying and writing about coercive diplomacy since the 1960's and has written several books on the subject. George coined the phrase coercive diplomacy and defined it as the "combined diplomatic efforts with the threat of military force."¹⁵ He states that coercion is just one of three components to crisis bargaining--persuasion and accommodation are the other two-- and that the policy-maker has to decide what combination and in what sequence to employ the three elements.¹⁶ George says that coercive diplomacy is useful only when certain conditions are present and that it has to be tailored to the specific situation at hand. It primarily aims at causing an opponent to stop a particular behavior or undo an action that has already occurred (such as an aggression against a neighboring country). Coercive diplomacy focuses on "affecting the enemy's will rather than upon negating his capabilities; if threats alone do not suffice and force is actually used, it is employed in a more limited, selective manner."¹⁷ Coercive diplomacy is specifically distinguished from the concepts of blackmail, which uses threats to persuade an opponent to give up something without resistance, and deterrence, which uses threats to dissuade an opponent from taking an action not yet initiated. Thus, George restricts the definition of coercive diplomacy to the defensive uses of coercion, that is, persuading an opponent to stop or undo an action he has already taken.¹⁸

One of the key concepts of coercive diplomacy, according to George, is that it offers an alternative to reliance on a purely military strategy in disputes with other states.¹⁹

Theory of Coercive Diplomacy

Over the years, George and his associates have developed an abstract theoretical model of coercive diplomacy. The key elements of this theory of coercive diplomacy include the assumption of a rational opponent; the lack of accounting for misperception and miscalculations on the part of the opponent; the idea that the goal is to persuade the opponent, not destroy him, through the use of gradual escalation; the importance of two-way communications in the process; the hope of achieving one's political goals with less cost; and the notion that the use of coercive diplomacy is highly context dependent and involves several variables and factors.

George states that in the purely theoretical sense, coercive diplomacy assumes a rationally thinking opponent who can receive and evaluate all relevant information, make proper judgments as to the credibility

and potency of the associated military threats, and see that it is in his best interests to accede to the demands.

The theory does not take

As far there is a doctrine of the "last clear chance." It recognizes that, in events leading up to an accident, there was some point prior to which either party could avert collision, some point after which neither could, and very likely a period between when one party could still control events but the other was helpless to run aside or stop. The one that had the "last clear chance" to avert collision is held responsible. In strategy when both parties avert collision, the advantage goes often to the one who manages the situation to its favor and leaves to the other the "last clear chance" to stop or turn aside.²⁰

into account the chances of an opponent misperceiving or miscalculating the situation, or the fact that the opponent's rationality is affected by psychological variables and by values, culture, and traditions that may differ from those of the coercive state.²¹

Coercive diplomacy tries to persuade an opponent to stop aggression rather than bludgeon him into stopping. If force is used, it is used in limited amounts to show resolve to protect state interests and to show the opponent that the coercer is determined and able to use more force if necessary.²² A key aspect of coercive diplomacy is to give the opponent a chance to discontinue the offending actions before they are subjected to the actual employment of military force.

Another key aspect is that it involves two levels of communication-- both words and actions. Words are required to convey the demands as well as the promise of concessions and the threat of the use of force. Actions, both military and diplomatic (such as concessions or side payments), are required to follow through with the threats.²³

In theory, coercive diplomacy offers the chance of achieving political objectives in a crisis with little or no bloodshed and less financial, political and psychological costs, and less risk of escalating to full-scale war. Using coercive diplomacy can be tricky though. Powerful nations can be tempted into believing they can intimidate weaker nations into doing their bidding. However, weaker nations may be more strongly motivated by what is at stake and refuse to back down, thus forcing the coercing power to back away from coercion, accept a compromise in the crisis, or escalate to the use of military force.²⁴ Finally, coercive diplomacy is highly context-dependent and likely to be successful only under certain conditions. When determining if and when to apply it, George says that one must look at several contextual variables and factors. These include:

- (a) the type of provocation: some types are easier to stop or undo in the face of coercion.
- (b) the magnitude and depth of the conflict of interests: coercion becomes extremely difficult in a zero-sum situation.
- (c) image of war: the more horrible the image of war the crisis triggers, the more strongly motivated one or both sides will be to operate with constraint.
- (d) time pressure to achieve objectives: time available can influence the urgency to resolve the issue; it can be reflected in the concern that international or domestic support will be lost, that changes in weather will make military operations more difficult, or that an opponent's military forces will grow stronger in time.
- (e) unilateral versus coalitional coercive diplomacy: this is more difficult with coalitions because the unity and sense of purpose may be fragile.
- (f) strong leadership: the choice, implementation, and outcome of coercive diplomacy may depend on the presence of strong and effective leadership (on both sides).
- (g) isolation of the adversary: coercion is more complex and difficult when an adversary is supported diplomatically and militarily by allies.

(h) preferred post-crisis relationship with adversary: both the objectives and means employed are sensitive to this variable.

These contextual variables and factors can be used to gain a better understanding of a crisis and assess the utility of coercive air strikes in resolving the crisis.

Strategy of Coercive Diplomacy

Taking coercive diplomacy theory a step further, George defines several variants of the strategy of coercive diplomacy. These include the try-and-see variant, the classic ultimatum, the tacit ultimatum, and the gradual turning of the screw. The try-and-see variant involves making demands without a set time limit or sense of urgency. The coercer takes one small coercive threat or action and waits to see if it will be sufficient to persuade the opponent before taking another step. The classic ultimatum has three parts-- the demand on the opponent, a time limit or sense of urgency for compliance, and the threat of punishment for noncompliance. The latter has to be both credible and potent enough to impress on the opponent that compliance is preferable to the punishment. The tacit ultimatum is similar to the classic ultimatum, except that the threat of punishment is implied but not specifically given. The gradual turning of the screw involves making threats of escalating coercion at the start and then incrementally increasing the coercive pressure and use of force. George says that they can shift from one variant or another, and when determining which strategy variant to use, policy-makers have to decide what to demand, whether and how to create a sense of urgency for compliance with the demands, whether and what kind of punishment to threaten for non-compliance, and whether to rely solely on the threat of punishment or also offer conditional inducements.²⁵

Conditions That Favor Coercive Diplomacy

George talks about conditions that favor the use of coercive diplomacy. He states that if these conditions are present, then the chances of success are more favorable, and if they are not present then the chances of coercive diplomacy being successful are reduced. The conditions include:

- (a) clarity of the objective.
- (b) strength of motivation.
- (c) asymmetry of motivation.

- (d) sense of urgency as perceived by the opponent.
- (e) adequate domestic and international support.
- (f) opponent's fear of unacceptable escalation.
- (g) clarity concerning the precise terms of settlement of the crisis.

It is crucial that the opponent believes that the asymmetry of motivation favors the coercing power, that the opponent believes it is urgent for him to respond, and that the opponent believes the coercer will escalate the use of force to bring about unacceptable costs to the coerced nation. George highlights that whether or not a strategy of coercive diplomacy works in a given case depends greatly on psychological variables. This leads to considerable uncertainty in any use of coercive diplomacy, because the possibility of misperceptions and miscalculations by either side is always present and can make it tricky to try to predict an adversary's behavior. Another problem is that it is difficult to accurately determine whether the conditions that favor the use of coercive diplomacy are present or can be introduced in any given crisis situation. The information requirements for a coercive diplomacy strategy are complex and difficult to attain. In order to estimate an opponent's motivations and their cost-benefit calculations, George says that it is necessary to have a good knowledge of the opposing leaders, their mind set, and the domestic and international contexts in which they are operating.²⁶ George concludes by saying that there will be few crises in which coercive diplomacy can be considered a "high-confidence strategy." If it can be made to work, then it is a less costly way of achieving political objectives than the exclusive reliance on military force.²⁷

Military Options Available To Support Coercive Diplomacy

This section briefly describes the forces, options, and level of effort available to support coercive diplomacy. It does so by reviewing the findings of Barry M. Blechman and Stephen S. Kaplan (and their team of researchers). They analyzed over two hundred incidents in the period 1945-1975 in which the United States had used military force to achieve political objectives. These incidents involved the use of military force that ranged from a show of force through port visits or deployment of aircraft all the way to explicit threats of the use of nuclear force. In the resulting book, *Force Without War*, they outlined their findings on the use of naval, ground, air, and strategic nuclear forces.

They concluded, not surprisingly, that the Navy had been used to further political objectives more than any of the other elements of military power (see Figure 2). Specifically, naval units participated in 177 out

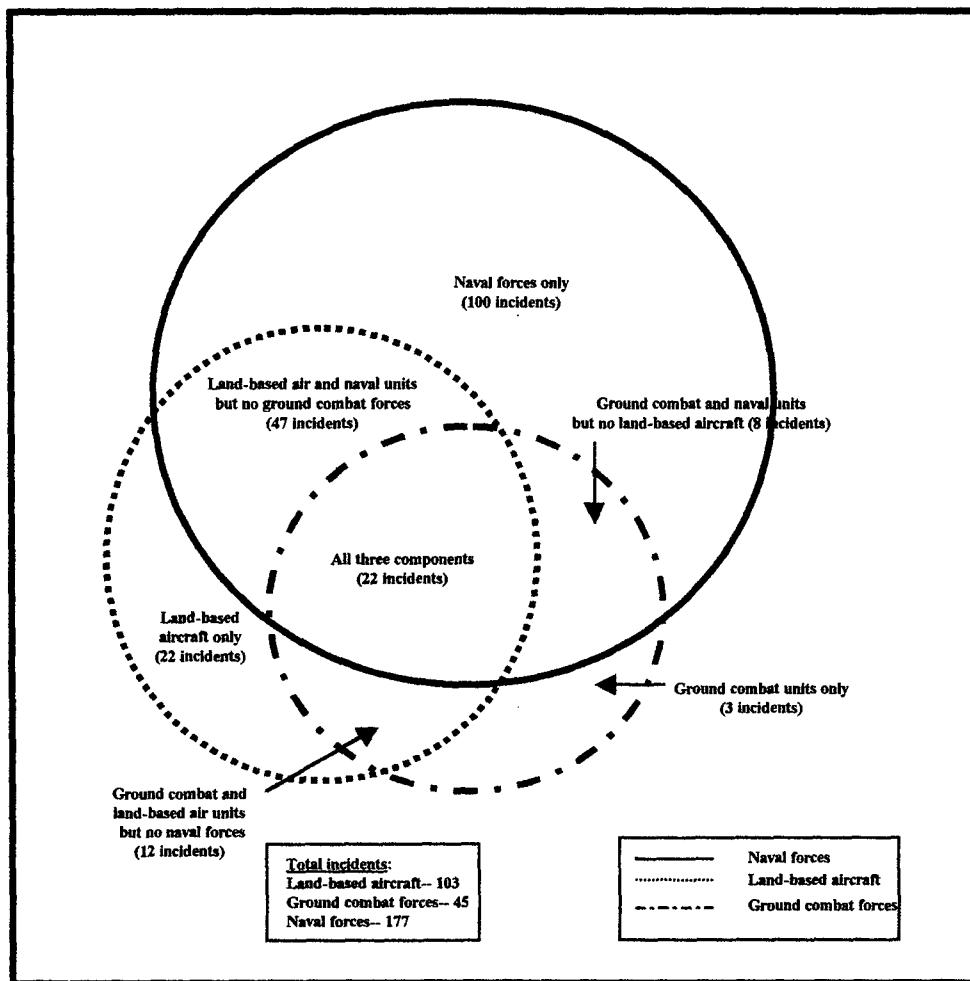


Figure 2. Number of Incidents in Which Naval, Ground, and Land-Based Air Units Participated. Reprinted from *Force Without War*, Blechman et al, 40.

of 215 incidents, or more than four out of every five incidents. Of note, the most-often used aspect of naval power was sea-based airpower, launched from aircraft carriers (used in 106 incidents overall).²⁸

Land-based forces were used in fewer incidents, and then normally in conjunction with naval and air forces. As Blechman and Kaplan point out, this is not necessarily a statement of the importance of the Army, because it is vital to national security and foreign policy in other ways. It says more about the level of United States resolve and commitment in a particular incident. Ground combat units took part in only 45 incidents, or about only one in every five incidents. When the Army did get involved it was usually in overwhelming force, and only for the most serious contingencies in which a brigade-size force or larger

was required. Many times, when the United States wanted to use ground forces quickly (and in a smaller, more limited package), they used the Marine Corps, which took part in 72 incidents.²⁹

Land-based air units participated in 103 incidents, or just under half of all incidents. Whereas naval forces alone were employed in 100 incidents, land-based air units alone took part in only 22 incidents, and ground combat forces alone were used in only three incidents. There were only 12 incidents in which the combination of land-based air units and ground combat units was used without naval participation.

Blechman and Kaplan distinguish between three types of air units used-- transport aircraft units, land-based combat aircraft units, and land-based patrol/reconnaissance aircraft units. The transports (52 incidents for fixed-wing, 14 incidents for rotary-wing) were used either to move United States equipment and troops or support movement of allied equipment and troops. Land-based combat aircraft were used infrequently during the analyzed period. There were 34 incidents for USAF aircraft and 12 incidents for USMC aircraft; five of these incidents involved both USAF and USMC aircraft. Land-based patrol/reconnaissance aircraft were used in 27 incidents, mostly involving maritime patrol.³⁰

Strategic nuclear forces were used in a threatening manner, but only sparingly. Blechman and Kaplan identified 19 incidents in which forces specifically designated with a role in strategic nuclear war (as opposed to tactical/theater nuclear war) were used to achieve political objectives. The use of strategic nuclear force in these incidents ranged from a show of support as was the case when the United States sent a nuclear submarine on a port visit to Turkey in 1963 to reassure Turkey following the withdrawal of United States nuclear missiles from there, to an overt and explicit threat such as those made by Kennedy during the Cuban Missile Crisis.³¹

Blechman and Kaplan said that United States forces employed for political objectives usually did not do much in the way of actual military operations. In a third of the incidents, the military activity consisted of passive activity such as port visits, surveillance, exercises, and demonstrations; most were aimed at preparing for some escalated activity that might be necessary later, but more importantly, aimed at reminding others of the extent of United States power. Actual military activity such as the use of firepower, use of physical force, imposition of blockades, interposition, emplacement of ground troops, or right of transit exercises were called for infrequently.³²

Blechman and Kaplan also talk about levels of effort. They created a scale to depict "military level of effort" based on their research in order to depict the level of force used in incidents while accounting for the variations in the type and size of military units used. They further categorized the incidents which they researched and determined that in terms of military level of effort, most incidents were on the lower end of the scale, that is, they were incidents in which minor or standard components of military force were used.³³ Naval forces were used at all levels of effort, while land-based air was used more often in association with higher levels of force, and called on first in connection with the highest level of force. Ground forces were used less frequently at all levels, and were used much more often in major actions.³⁴

The Use Of Coercive Air Strikes

Airpower³⁵ has been used almost since its inception in attempts to induce opponents to comply with demands (See Table 1). There are some instances in which the use of airpower, and more specifically coercive air strikes, has been successful, such as the raid against Libya in 1986. There are other instances, such as the gradually escalating use of air strikes against North Vietnam, which were not successful. In the years since Blechman and Kaplan completed their study, much has happened to make airpower more desirable as a tool of coercive diplomacy.

Coercion. Aerospace power can be decisive in both deterring an enemy from performing an action counter to US interests, or in compelling an enemy who is already performing such an action to cease and desist... Nonlethal coercion relies either on nonlethal instruments of aerospace power, or the implied use of lethal means, to "face down" the aggressor without actual combat operations. Lethal coercion employs combat power to punish an aggressor, demonstrate the risk of further aggression, or incapacitate the aggressor's military forces. (Air Force Doctrine Document-2)

Year	Coercer	Target	Issue
1917	Germany	Britain	British withdrawal from World War I
1920	Britain	Somalis	Rebellion
1920s	Britain	Turkey	Northern Iraq
1936	Italy	Ethiopia	Ethiopian sovereignty
1936-39	Spanish nationalists	Spanish loyalists	Spanish sovereignty
1937-45	Japan	China	North/Central China
1938	Germany	Britain/France	Czechoslovakia
1939	Germany	Britain/France	Poland
1939	Germany	Poland	Polish sovereignty
1939-40	USSR	Finland	Finnish sovereignty
1940	Germany	Netherlands	Dutch sovereignty
1940	Germany	Britain	British withdrawal from World War II
1943	US/Britain	Italy	Italian sovereignty
1942-45	US/Britain	Germany	German sovereignty
1944-45	Germany	Britain	Reduction of surrender demands
1944-45	US	Japan	Japanese sovereignty
1950-53	US	China	North Korea
1954-62	France	Algerian rebels	Algerian sovereignty
1956	Britain/France	Egypt	Control of Suez Canal
1956	USSR	Britain/France	Withdrawal from Middle East War
1962	US	USSR	Missiles in Cuba
1965-68	UN	North Vietnam	South Vietnam
1972	US	North Vietnam	South Vietnam
1969-70	Israel	Egypt	Cessation of artillery attacks
1970s	Israel	PLO	Terrorism
1979-88	USSR	Afghan rebels	Government of Afghanistan
1979-86	USSR	Pakistan	Support for Afghan rebels
1983-85	Israel	PLO	Terrorism
1980-88	Iraq	Iran	Border territories
1986	US	Libya	Terrorism
1991	US	Iraq	Kuwait
1991	Iraq	Saudi Arabia	Kuwait
1991	Iraq	Israel	Provoke military response
1995	US	Bosnian Serbs	Bosnia-Herzegovina
1997	US	Iraq	Compliance with UN resolutions
1998	US	Iraq	Reduction of WMD capability
1998	US	Osama Bin Laden	Terrorism
1999	US	FRY / Serbia	Kosovo

Table 1. Coercive Air Campaigns. Reprinted and Updated from *Bombing to Win*, by Robert Pape, 49.

Blechman and Kaplan outlined several reasons why the Navy was used more than the other forces during 1945-75.³⁶ Specifically, ships were easier to move about than others types of units and could be moved at less cost and faster than land-based units of comparable size. Warships could be less disruptive psychologically than land-based forces as they could remain nearby, but out of sight, and could be used with more subtlety to support policy. Much of the employment of naval forces also had to do with the United States tradition of gunboat diplomacy. For most of United States history, the Navy was the only military instrument which could be used for these purposes. There were few, if any, forces abroad and the rapid movement of land-based forces was impossible. The Navy came to think of themselves as the primary force of choice to support the pursuit of limited political objectives around the world. Because of changes in USAF equipment and doctrine, strategy and tactics, some of these reasons are just as applicable today to the employment of airpower. The USAF has gradually moved away from organizing for strategic versus tactical missions with more combat aircraft being designed for multi-role missions. Moreover, one of the greatest changes has been the improvement made to precision-guided munitions and the tactics to employ them. Airpower is being called on more frequently in the post-Cold War era to respond to political crises at all force levels, not just at the highest force levels. Research into the area of coercive air strikes may be able to discern whether they are effective in terms of friendly lives saved and resources expended versus the diplomatic objectives attained.

Chapter Three

COERCIVE AIR STRIKES-- SUCCESS OR FAILURE

Air strike diplomacy, with its echoes of the gunboat diplomacy of an earlier imperial age, is now well established as the favored form of US-led pressure— the nearest military planners can get to a painless procedure for those administering the punishment— in the New World Order.

S. Milne and R. Norton-Taylor³⁷

Military thinkers generally tend to polarize into two schools of thought regarding the utility of coercive air strikes. One school believes they work, while the other school believes they do not. Airpower naysayers scoff at the idea that airpower can achieve decisive results in a conflict. They loudly proclaim that airpower and its “part-time warriors”³⁸ has never been the decisive element in conflict, despite the promises of airpower advocates. There are many reasons for this belief, including the inflated claims of airpower zealots who oversell airpower capabilities, service parochialism that leads to closed minds about the possibilities of airpower employment, and the historical mismatch between airpower concepts and the technology to achieve those concepts. Alternatively, airpower advocates argue that there are several key attributes of modern airpower that make it a decisive military instrument for coercive situations.

These include its power projection capability, its ability to achieve surprise through the use of stealth, cruise

Gunboat Diplomacy. *The use or threat of use of limited naval force, otherwise than as an act of war, in order to secure advantage, or to avert loss, either in the furtherance of an international dispute or else against foreign nationals within the territory or the jurisdiction of their own state.*

(James Cable, quoted by Richard Haass in Intervention)

missiles and stand-off munitions, its precision delivery capability and its flexibility.³⁹ Why such disparity of beliefs in the effectiveness of airpower? One of the biggest reasons is the fact that the effects of airpower are difficult to measure at any level other than the purely tactical level. This chapter defines success or failure in the context of coercive air strategies, looks at some examples of coercive air strikes which are generally accepted as being successful or unsuccessful, and then examines conditions that lead to the successful use of coercive air strikes.

Can Success or Failure Be Defined?

On the surface, whether coercive air strikes were successful or not appears to be very straightforward. Either they worked or they did not. However, it is more complicated than that. Robert Pape talks about measuring effectiveness of military operations in terms of combat effectiveness (how efficiently a given force can destroy a given target set) and strategic effectiveness (whether the destruction of target sets attains desired political goals).⁴⁰ He points out that measures of combat effectiveness are measures of how quickly and cheaply forces perform military missions, not whether mission success will achieve political purposes. Blechman, Kaplan and Eric Herring⁴¹ talk about favorable or unfavorable outcomes of a particular crisis instead of success or failure. Blechman and Kaplan imply that while it would be nice to be able to discuss the use of force in terms of success or failure, these terms “imply causation, which cannot be determined absolutely.”⁴² Herring describes two methods of analyzing outcomes. First, from a holistic approach that stresses the “detailed, historical, political, and cultural context,” or second, from a social science approach that stresses “scientific methods and cause and effect.”⁴³ These authors all highlight the fact that outcomes can be short-term and long-term and that sometimes the outcomes can be reversible, especially the short-term outcomes.

For the purposes of this paper success is defined as the combination of favorable outcomes and positive strategic effectiveness. That is, successful use of coercive airpower occurs when particular targets are attacked such that political goals are attained that favor the coercer. Different interpretations of the same facts can lead to differing conclusions about success or failure. The discussion that follows includes examples of crises in which airpower was generally believed to be successful or unsuccessful in achieving favorable outcomes to the coercer.

Coercive Airpower ‘Failures’

Operation Rolling Thunder, Vietnam, 1965. In response to Viet Cong attacks on United States bases, President Johnson decided to conduct retaliatory strikes against targets in North Vietnam. The initial strikes were against Viet Cong strongholds in South Vietnam, but subsequent strikes were carried out to send a message to North Vietnam in response to its intervention in the south. Subsequent air strikes, as part

of Operation Rolling Thunder, were limited in scale in order to prevent antagonizing Hanoi into escalating its involvement and to prevent the Chinese or Soviets from entering the conflict. Targets were primarily supply depots, barracks, bridges and lines of communication located below the twentieth parallel, with the intended goal of reducing North Vietnamese support to the Viet Cong operating in the south. Targets within Hanoi and Haiphong were avoided and “held hostage for later when bargaining for a settlement.”⁴⁴ Ultimately, the limited air campaign did not work because Hanoi was “much more strongly motivated to resist Johnson’s demands” because it was “on the verge of finally achieving its long-standing national goals of unifying Vietnam.”⁴⁵ George says that the conflict of interests in this case “approximated a zero-sum contest,” because Johnson relied on the use of threats and could offer no positive inducements to Hanoi to give in.⁴⁶ In addition, Robert Pape points out that this attempt at coercion failed because “air strikes could not cut off the minimal supplies and reinforcements needed from the North from the Viet Cong to pursue a guerrilla strategy.”⁴⁷ The United States was successful in interdicting the LOCs, but it was never able to totally shut them down, and the trickle of supplies and reinforcements that did get through to the south was enough to keep the Viet Cong replenished.

Operation El Dorado Canyon, Libya, 1985-1986. The Reagan administration tried to coerce Mohamar Qaddafi to end his support of international terrorism and moderate his foreign policies. Following terrorist attacks in December 1985 that were linked to Libya the United States employed a try-and-see variant of coercive diplomacy. The United States tried to gain allied support to impose political and economic sanctions against Libya, but the allies were not interested. The United States also challenged Libya’s so-called ‘line of death’ in the Gulf of Sidra, hoping to provoke a military response, which it did. It also provoked increased terrorist activity that culminated in the April 1986 attack on a West Berlin discotheque that killed three Americans.

As a result, Reagan ordered air strikes against five terrorism-related targets in Libya and once again tried to gain allied support to impose sanctions and take cooperative military action against Libya. While the combat effectiveness of the air strikes was high (there was considerable damage to Libyan installations and property), the strategic effectiveness was considered by many to be low. This is because the air strikes failed to stop Libya from sponsoring international terrorism. George says that although Qaddafi did moderate his

activity somewhat, there were other factors besides the air strikes that contributed to this, such as the strengthening of Western counter-terrorism operations and a greater Libyan effort to hide terrorist activity.⁴⁸ Moreover, Libyan-sponsored terrorist activities continued over a period of at least the next ten years. Instead of compelling Libya to cease its sponsorship of terrorism, the air strikes against Libya may have provoked additional acts. Just three weeks after the air strikes, Libya was suspected of shooting two State Department officers, murdering three hostages in Beirut, and nearly bombing an El Al flight in London. In December 1988, Libyan agents allegedly bombed Pan Am flight 103, killing 270 people.⁴⁹

Fall of Srebrenica, 1994. In July 1994 General Ratko Mladic, Commander of the Bosnian Serb Army, received permission from the Chief of the Yugoslav Army, Momcilo Perisic, to attack three Bosnian Muslim enclaves-- Srebrenica, Zepa, and Gorazde-- in eastern Bosnia, despite the fact that they had been designated as United Nations (UN) safe havens. Srebrenica, a town of 60,000, was the first to be attacked and was taken without much resistance by the Bosnian Army. While Muslim soldiers fled to fight another day, Bosnian Serb troops entered the city of Srebrenica on 11 July and separated the civilian men from the women and children, even as a contingent of Dutch UN peacekeepers stood by helplessly. The Bosnian Muslim men were subsequently taken outside the city and executed.⁵⁰ During the assault, the commander of the Dutch UN contingent repeatedly requested close air support (CAS) through UN channels. The UN failed to approve the requests until Srebrenica was already about to fall. NATO fighter jets supporting the UN operation arrived over two hours after the request was approved and destroyed one tank and damaged another, but the effort was too little, too late. NATO scrambled more CAS aircraft to the area, but by then Mladic had warned the UN that further air strikes would result in the death of the Dutch UN peacekeepers that he now held as hostages.⁵¹ The fate of Srebrenica was sealed, and the event was seen as yet another failure of airpower to be decisive, although it could be argued that under the circumstances it was more a political failure than one of airpower.

Coercive Airpower 'Successes'

Linebacker I and II, Vietnam, 1972. While there is much controversy over all aspects of the Vietnam War, it is generally acknowledged by experts such as Alexander George and Robert Pape that the bombing

campaigns of 1972 were successful in compelling North Vietnam to cease its conventional attack on South Vietnam and to agree to peace talks that led to a cease-fire. In contrast to the failure of Rolling Thunder, which tried to use limited coercive air strategies that were irrelevant to the enemy's strategy of unconventional warfare⁵², in Linebacker I and Linebacker II airpower was used in an unconstrained manner and was successful because North Vietnam had resorted to a conventional offensive strategy that required a large amount of logistics and reinforcements that were vulnerable to air interdiction.

Deliberate Force, Bosnia, 1995. From 30 August to 14 September 1995, NATO aircraft conducted strike operations against Bosnian Serb targets in Bosnia-Herzegovina in an effort to break the Bosnian Serb siege of Sarajevo and get peace negotiations back on track. While the previous strategy was to use airpower to maintain a status quo while negotiations developed a political solution, during Deliberate Force the strategy changed to one of coercion to force the Serbs to cooperate. Airpower was used to attack targets near Serb strongholds such as Pale and Banja Luka, including air defense sites, communications nodes, weapons and ammunition storage areas and lines of communications. There were several other important influences that directly led to the Dayton peace accords, including the fact that Serbian President Milosevic had recently dropped his political, economic and offensive support to the Bosnian Serbs, and the fact that the Croatians and the Bosnian Muslims had initiated a highly successful coordinated offensive throughout Bosnia (with great success in retaking the Krajina region) which threatened to reverse many of the territorial gains that the Bosnian Serbs had made over the past three years.

Faced with defeat on the ground, a loss of support from its Serbian benefactors, and in the face of threats of continued losses due to NATO air strikes, the Bosnian Serbs capitulated and agreed to meet for peace negotiations. While air strikes alone did not force the Bosnian Serbs to capitulate, they were certainly a decisive factor in their decision to halt their aggression and meet for peace negotiations.⁵³

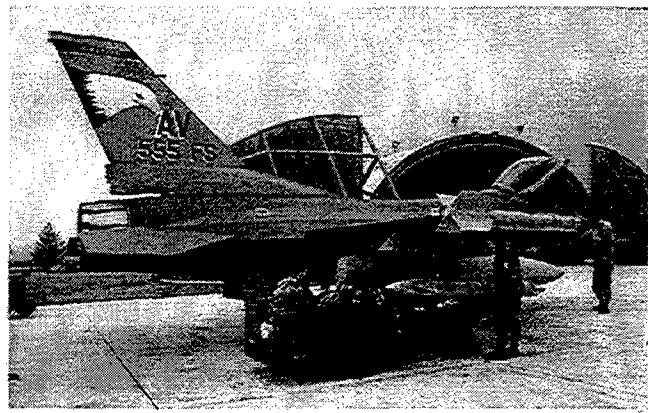


Figure 3. US F-16 Preparing for NATO Mission at Aviano Air Base, Italy. Photo by Paul Kennedy for "The Force at Aviano," by Paul Kennedy and Guy Aceto, AIR FORCE Magazine, December 1996, 27-33.

Desert Storm, Iraq, 1991. Following the August 1990 Iraqi invasion of Kuwait, the UN Security Council and US-led coalition tried to use the “gradual turning of the screw” variant of coercive diplomacy to compel Iraq to withdraw from Kuwait. They initially imposed economic sanctions and later threatened to resort to military force. When these options did not work, the coalition shifted to the “ultimatum” variant that appeared to be a “diplomatic version of the well-known game of chicken.”⁵⁴ Neither side was willing to back down, leading to further escalation, and finally, war. While George says this indicates that coercive diplomacy failed, Pape looks at the crisis from the perspective that airpower was used to compel Iraq to withdraw from Kuwait. He points to evidence that Iraq was willing to withdraw from Kuwait even before the start of the ground war, and thus the coalition air strikes were successful.⁵⁵ Again, airpower was not the sole factor in compelling Iraq to withdraw its forces from Kuwait, but it was arguably the decisive factor.

Conditions That Lead to Successful Use of Coercive Air Strikes

The above examples are just a few of many that can be cited to demonstrate the outcomes of the use of air strikes to achieve political objectives in a crisis. The examples were not intended to imply that airpower was the only factor, rather it was a decisive factor in the outcome. The various experts have their own conclusions about the conditions that led to the successful use of coercion (see Table 2).

Overall, there is no guarantee that the use of coercive air strikes or any other form of military coercion will work, even if the stated conditions are present. However, the chances for failure are much greater if those conditions are not present. As Richard Haass says, when trying to coerce an opponent into stopping a particular action, “what is relevant is not the force used but the reaction to it.”⁵⁶ The important question now to be answered is how do we get the desired reaction from the opponent?

Stephen Cimbala <i>(Coercive Military Strategy)</i>	Attributes of a Well-Formulated Coercive Military Strategy: <ul style="list-style-type: none"> * The strategy aims to influence the will of the opponent * The coercer is open to revising his objectives * The coercer is able to use "perspective taking (the ability to see the other side's objectives and motives)" * The coercer is able to use "symbolic manipulation (mastery of manipulating symbols and information to support objectives)" * The coercer understands and uses the power of "moral influence (will of the people, popular support)"
Barry Blechman and Stephen Kaplan <i>(Force Without War)</i>	Factors That Led To Successful Outcomes in the Use of Force To Achieve Political Objectives: <ul style="list-style-type: none"> * US objectives * Soviet involvement * Situational Factors * Type of Force and Mission
Alexander George <i>(Forceful Persuasion)</i>	Conditions That Favor Successful Outcomes of Coercive Diplomacy: <ul style="list-style-type: none"> * Clarity of Objective * Strength of Motivation * Asymmetry of Motivation * Sense of Urgency * Adequate domestic and International Support * Opponent's Fear of Escalation * Clarity of End State Desired
Stephen Hosmer <i>(Psychological Effects of U.S. Air Operations in Four Wars 1941-1991)</i>	<p>Conditions Producing Adversary Concessions From Air Strikes: The enemy perceives that <ul style="list-style-type: none"> * they face defeat or stalemate on the battlefield * they are unlikely to get better peace terms if they prolong fighting * the cost of damage from attacks outweighs the cost of concessions * there is no prospect of mounting an effective defense or counter-attack </p> <p>Conditions Producing Adversary Capitulation From Air Strikes: <ul style="list-style-type: none"> * The above conditions, plus the removal from power of the leader(s) who started the conflict. </p>
Robert Pape <i>(Bombing To Win)</i>	<p>Formula to Determine Adversary Desire to Resist Coercion is</p> $R = Bp(B) - Cp(C),$ <p>Where R = Value of Resistance to Coercion, Bp(B) = (Potential Benefits of Resistance) x (Probability of Attaining Benefits by Continued Resistance), and Cp(C) = (Potential Costs of Resistance) x (Probability of Suffering Costs).</p> <p>Concessions in the Face of Coercion Occur When R = 0.</p> <p>To achieve success, coercive air strikes must target military vulnerabilities in a conventional dispute, or civilian vulnerabilities in a nuclear dispute. Success is a function of interactions between the coercer's strategy, the target state's military strategy, and the target state's domestic politics.</p>

Table 2. Conditions Leading to Successful Use of Coercion.

Chapter Four

TARGETING FOR COERCION

The first few times I experienced a B-52 attack it seemed... that I had been caught in an Apocalypse. The terror was complete. One lost control of bodily functions as the mind screamed incomprehensible orders to get out.

Viet Cong Minister of Justice⁵⁷

Air planners usually think in terms of how many sorties have to be matched to a set of key targets to achieve a level of damage that will achieve desired effects. This focus on inflicting damage to specific targets may not be the most important concern when targeting for coercion. As Stephen Cimbala said, targeting for coercion is an "influence process"⁵⁸ directed at a reactive military and political organization. When using coercive air strikes, planners should take into account the psychological effects of airpower as a tool of influence. They must also determine what to target to achieve desired political-military effects and determine an overall coercive strategy to implement.

Psychology Of Air Strikes

There have been several studies on the psychological aspects of employing airpower. In one such study Stephen Hosmer stated "in some conflicts, the psychological effects of air operations may exceed the physical effects in importance."⁵⁹ It has been generally acknowledged that there is a specific psychological aspect to the victims of air attack. If this is known and understood, then air strikes can be conducted to capitalize on their psychological effects. To do this, planners must determine if they're going to attack an adversary's leadership, its population or its military forces.

When focused on psychological impact, the goal of air strikes is to increase the feelings of fear and helplessness and maintain such a high level of stress on the enemy that he is unable to cope with the situation. Lambert says there are certain stressors that explain the psychology of the victims of attack. These include sensitization, panic, expectancy, impotence, hopelessness and pervasiveness.

Sensitization occurs when the victim experiences a series of highly threatening situations or fails to oppose the enemy attacks.⁶⁰ *Panic* occurs in two phases.⁶¹ First, there is a gradual build-up of stress or tension. Then, there is a sudden shock or surprise, real or perceived, which initiates the panic. Individuals create a certain level of *expectancy* regarding air strikes by building mental models of what to expect and comparing actual events with these models. Air strikes can be demoralizing when they differ substantially from the mental models in terms of intensity, accuracy and deadliness.⁶²

Impotence is a feeling of not being able to effect the enemy and is in reaction to the enemy's "perceived omnipotence and omniscience."⁶³ To instill this feeling air strikes need to be shown to be unbeatable and the attacker needs to show that he can apply the correct type and amount of lethal force anywhere he wants to. *Hopelessness* occurs when the enemy feels he is unable to be successful against air attacks and there is no prospect of being successful in the future. In the face of overwhelming odds, the victim may either believe there is no point in continuing and give up or he may sometimes revert to martyrdom.⁶⁴ With respect to *pervasiveness*, if the attacker has air superiority and can attack anywhere at will, then "the knowledge that the skies are owned by the enemy and that all aircraft seen are threatening is highly demotivating."⁶⁵

These stressors in combination can create powerful psychological effects on the adversary. To capitalize on these effects air strikes should try to increase the levels of fear, stress and hopelessness in not only fielded military forces but also an adversary's leadership and population. Hosmer says two types of air operations can potentially produce psychological effects that may diminish the enemy's resistance.⁶⁶ First, air operations that destroy or threaten to destroy enemy strategic targets can help coerce an enemy government to end a conflict on terms acceptable to the coercer. Second, air operations against enemy deployed forces can demoralize them and cause unit cohesion to disintegrate and cause a collapse of their battlefield resistance.

Strategic campaigns have historically been unable to provide enough coercive leverage or psychological impact to achieve conflict objectives.⁶⁷ To force the adversary to capitulate the coercer must convince the enemy leadership that its deployed forces will be defeated.

To defeat the adversary's deployed forces psychologically, Lambert says air strikes should aim to increase the levels of constant stress by pinning the enemy down, isolating him and creating a sense of

expendability and maximizing his discomfort and fatigue. It should also persuade him of the effectiveness of air weapons by inflicting a high number of casualties on him and by preventing him from retaliating. Moreover, the air strikes should be more severe than expected, aircraft should be pervasive and create feelings of impotence, hopelessness and panic.⁶⁸ This implies massive, continuous air strikes that only increase in intensity and destructiveness until the enemy gives up. Attacks should not be so demoralizing the enemy becomes a martyr. Instead, the enemy should be given a way out of his predicament. Psychological operations can be useful in explaining what the enemy has to do to surrender.

As mentioned above, many experts believe that a coercer should attack an adversary's deployed forces to be successful. Lambert says that airpower can be applied to three distinct groups of targets—leadership, people and armed forces. As Vietnam showed, air attacks used gradually to coerce a leadership may encounter pitfalls. They allow the leadership time to become inoculated, to motivate the population, and physically prepare defenses. Lambert points out that as the economic and social suffering caused by war increases, states become less willing to abandon these sunk costs by making concessions. He further states that

*"If the attack is to be focused on leadership, history suggests that it needs to pass a critical point of sensitization, and to offer repeated stresses that will accumulate rapidly with time. An anti-leadership air strategy is unlikely therefore to work, except against a weak government (which may concede to demands or collapse in defeat), unless it is executed with an intense application of power, which undermines the victim's expectations of military success. The leadership of a state is thus vulnerable to air coercion; the difficulty lies in exerting levels of stress on the decisionmakers in a way that will provoke a desirable reaction."*⁶⁹

Lambert says that if the people, or civilian morale, are targets there has to be a mechanism by which the stress imposed can be translated into a desirable outcome. But, he argues, "unless the application of force is widespread and overwhelming, then what might demotivate one city is unlikely to have the same effect on an untouched city elsewhere. Only a series of nuclear attacks would have the power to accomplish a level of destruction across a sufficiently wide area to produce levels of demotivation sufficient to terminate a war."⁷⁰ Thus, Lambert says that if the leadership and population are only advantageous targets under special circumstances, the more profitable target is likely to be the armed forces. Most conventional weapons have been optimized for attacks on military targets, and other alternatives are some way off. The armed forces

are the teeth of a regime, and the West's likely future roles will frequently require confrontation with an enemy force. Furthermore, armed forces are both legitimate and vulnerable targets without which the enemy's leadership is impotent. They comprise large numbers of people who, deployed away from home, are concentrated in space, live in circumstances which can be made inhospitable, and are thus likely to be susceptible to psychological pressure. Moreover, defeat of an army is likely to resolve the immediate crisis, and may even precipitate a change in the leadership.⁷¹

THE PSYCHOLOGICAL IMPACT OF AIR POWER

- a. Air superiority is the essential physical and psychological precursor to any air campaign.*
- b. Psychological warfare has a vital task in preparing the enemy soldier for an air bombardment, and then in exploiting its effects to the full.*
- c. Demonstration of air power's omnipotence will undermine an enemy's confidence in the future. Once he believes himself impotent, and unable to influence the battle, a soldier is unlikely to fight unless he is directly threatened.*
- d. A range of weapons needs to be used. High technology to undermine the longer-term prospects by inflicting damage on vehicles and structures (omnipotence), with free-fall or strafing weapons to provide immediate personal threat against masses of troops (terror).*
- e. The enemy soldier's initial expectancy is likely to be of success; undermining this expectancy will create considerable doubt over both the outcome and the soldier's chance of survival. Thus: the initial attack must be highly devastating; repeat attacks will create a cycle of fear. The frequency should minimize recuperation; the intensity of attacks must increase with time; air power needs to appear pervasive.*

(A.P.N Lambert, The Psychology of Air Power)

Lambert argues that the optimal use of air power is to attack the military forces of the opponent, quickly and with great intensity in order to impose high levels of stress and take away the individual's stress coping mechanisms. When the individuals and small groups are sensitized to further attacks and the pervasiveness of air power, they experience a high level of fear, hopelessness, impotence and despair and either run away or hunker down and turn inward, paralyzed into inactivity. The opponent must be given a way out so that he is not compelled into a state of martyrdom. For example, a coercer can use psychological operations (leaflets and broadcasts, etc.) to tell the opponent how to surrender.

The air attacks have to be carried out with initial and continuing intensity so that the individual's body can not cope with the stress and his fear increases significantly. Ideally the fear can be built up with sudden or unexpected attacks such that panic ensues and the enemy capitulates.

Determining What To Target

The planner must link the overall strategy and objectives to the military tasks that will achieve those objectives. There are various analytical models that can help determine what to attack. Targeting for coercion, like targeting for war, follows guidelines and objectives outlined at the national, theater and service component level and links a campaign strategy and specific tasks to those guidelines or objectives. The National Command Authority (NCA) sets national objectives that are broad in nature and outlines the overall desired outcome of a campaign. The National Military Strategy provides strategic guidance for employing force and the force structure to attain national security objectives. The theater commander in chief (CINC) is responsible for objectives for the theater of operations. These objectives are sometimes embedded in operations plans or contingency plans, and may be rolled into courses of action. The component commander develops plans to employ forces to accomplish the theater objectives. In this way the different levels of objectives are linked.⁷² A good objective is understandable, requires action, is attainable, allows for flexibility in reaching the objective, and provides criteria to measure the progress and effectiveness of campaign efforts.⁷³ Service components each have their own targeting process which includes target analysis to determine which targets to attack to achieve the objectives.

Coercive diplomacy is more complex than pure military operations in that there has to be a mix of threats to use force or actual use of force and the employment of other elements of national power simultaneously. All four elements of power-- diplomatic, informational, military and economic (DIME)-- are used to varying degrees during coercive diplomacy to get the adversary to comply with demands. There are various analytical models used to determine the focus of effort for a military campaign and what specific target or target set to attack. However, not all of these models take into account the employment of all

Center of Gravity. That characteristic, capability, or locality from which a military force, nation, or alliance derives its freedom of action, physical strength, or will to fight. It exists at the strategic, operational, and tactical levels of war. (Joint Pub 1-02)

elements of national power—they focus only on the military element. The US Air Force advocates several different analytical models that help determine an adversary's center of gravity. These include John Warden's Five Rings Model, the Country X Model and Dr. Joe Strange's Center of Gravity and Critical Vulnerabilities Model.⁷⁴ It is not the intent of this paper to discuss in detail each of these, merely to note that they exist and are used by air campaign planners (See Appendix 1-3). Another model that has particular utility when planning coercive military actions is the Military Operations Other Than War (MOOTW) Analysis Model taught by the Joint Operations Department at the US Army's Command and General Staff College (CGSC). This method uses a matrix (See Appendix 4) to analyze all of the elements of national power and all of the internal and external factors that are involved in a particular crisis. While designed for planning humanitarian or peacekeeping operations, the matrix could easily be adapted for use by those involved in planning military operations as part of a strategy of coercive diplomacy. Using this matrix could help highlight aspects of national power that could be used in a coercive operation that might not be evident if using purely military planning models.

Coercive Strategies: Punishment or Denial

While planners are analyzing objectives and determining the best way to coerce an adversary, they should also be determining the best air campaign strategy to use. In the context of coercion, Robert Pape describes two basic coercive strategies—punishment and denial. Punishment strategy tries to raise the costs and risks to the civilian population by either directly or indirectly targeting civilian resolve.⁷⁵ Denial strategy seeks to prevent the adversary from reaching its political or territorial objectives by threatening to destroy its military power or take away territory that the adversary has captured. Pape makes a good case that punishment strategies and associated strategic air campaigns usually do not work because they take too long and because the resolve of an entire population is difficult to break. On the contrary, national resolve sometimes increases in the face of air strikes. Thus, Pape says that a denial strategy is more likely to work, because it raises the overall costs or reduces the probability that objectives can be attained with continued resistance.⁷⁶

Pape says denial strategies have three limitations.⁷⁷ First, the coercer can only obtain concessions over specific objectives that have been denied to the adversary. Second, coercive pressure has to be continuous

until an agreement is reached to avoid giving the adversary a chance to regroup. Finally, a denial strategy is expensive for both sides, because it destroys things of value to the enemy and also because it requires the coercer to expend many resources carrying out air strikes and preparing for full military operations if coercion does not work.

Pape also argues that airpower alone is not a successful tool of military intervention because coercion is very difficult and because strategic bombing does not work in a denial strategy.⁷⁸ Instead, he contends that theater airpower is more successful in a denial strategy as it is better suited to attacking fielded military forces, but even then it is only successful when it is combined with simultaneous pressure from ground forces.

Chapter Five

CAN COERCIVE AIR STRIKES WORK IN CURRENT CRISES?

The power to hurt—the sheer, unacquisitive, unproductive power to destroy things that somebody treasures, to inflict pain and grief—is a kind of bargaining power, not easy to use but used often.

Thomas C. Schelling⁷⁹

On-going activity in Kosovo and Iraq provide examples of coercive diplomacy in action. Chapter One provided conditions that favor the use of coercive diplomacy and improve the likelihood of outcomes favorable to the coercer. This chapter provides a short background of the situations in Kosovo and Iraq, compares these conditions to the evolving situation and makes a prediction on crisis resolution based on those conditions.

Kosovo-- Force Is All That's Left

As this paper is being written (April 1999), events in Kosovo have escalated into violence. Attempts to broker a peace agreement between Slobodan Milosevic and leaders of the Kosovo Liberation Army have failed. Serbian military and paramilitary forces have surrounded the province of Kosovo and are carrying out a stepped-up campaign of ethnic cleansing, forcing thousands of ethnic Albanians to flee to Albania, Macedonia and other bordering countries. Reports of atrocities against civilian Kosovars are being filed daily as the Serbs systematically destroy or evacuate village after village. NATO aircraft have launched an offensive air campaign, dubbed Operation Allied Force, aimed at degrading and deterring Milosevic and the forces in Kosovo and compelling Milosevic to sign a peace accord drafted in Rambouillet, France and already signed by Kosovar leaders. After several days of air strikes and cruise missile attacks on Serb air defenses, command and control facilities, logistics and lines of communication, attacks have shifted to a second phase to attack fielded Serb forces in Kosovo. Public outcries from around the world question why the air strikes

"The Clinton administration learned a very bitter lesson in the Bosnian War, that if diplomacy is not often backed by the threat of force or the willingness to use force in an unstable environment like this, diplomacy is often ineffective."

are taking so long and why NATO has not been attacking Serb forces in Kosovo with greater urgency and intensity. NATO's reply is that they have been carrying out "step-by-step, systematic, progressive attacks" to compel Milosevic to stop his aggression against the Kosovars and to sign the peace agreement.

As developed by Alexander George, the conditions that favor the use of coercive diplomacy (of which coercive air strikes are a part) include clarity of objective, strength of motivation, asymmetry of motivation, sense of urgency as perceived by the opponent, adequate domestic and international support, the opponent's fear of unacceptable escalation, and the clarity concerning terms of settlement. Each of these will be discussed below. The (+) symbol denotes that in this instance this condition was favorable for the coercer, whereas the (-) symbol denotes it was unfavorable.

Clarity of Objective. (+) NATO and US objectives have been fairly clear and were evident in the peace agreement they tried to broker in France. The objectives are to stop aggression against Kosovars, reestablish autonomy to Kosovo and introduce NATO peacekeepers to guarantee the safety of returning refugees.

From a regional perspective, NATO wants to prevent the spread of violence into other parts of the region and maintain solidarity among its member nations. Additionally, NATO wants to maintain good relations with Russia, a difficult goal in light of the historical and cultural ties Russia has with Serbia.

NATO officials said openly before the start of the air strikes that their bombing strategy would be aimed at undermining Milosevic's political power by eliminating his military assets in the hope that this would lead Milosevic to either change his policy or self-destruct.⁸¹ As the air strikes were being carried out, the clarity of the objective was in doubt since the campaign seemed to be focused on strategic targets instead of the military forces carrying out the atrocities in Kosovo. Perhaps the initial air strikes were intended only as a



warning to Milosevic, with continuing escalation and destruction to follow if he failed to comply with NATO demands.

Strength of Motivation. (+) To improve the chances of success, the coercer has to be sufficiently motivated by the stakes in the crisis. NATO/US motivation was sufficiently strong because they wanted to show their resolve and leadership in solving European problems. NATO's credibility and its continued survival as a viable organization is at stake. In the current crisis, NATO is especially concerned about the humanitarian issues and feels that it can not stand by and let ethnic cleansing occur in Kosovo. The Clinton administration is also strongly motivated to carry out its national security strategy. It has repeatedly stated the US has compelling national interests in the Balkans, despite doubts of those outside the administration.

Asymmetry of Motivation. (-) Coercive diplomacy is more likely to be successful if the coercer is more highly motivated by what is at stake than the opponent. More importantly, the opponent must believe the coercer is more motivated. This is not the case in the Kosovo crisis, where Milosevic perceives that NATO is not as motivated or willing to fight over the issue as he is.

Milosevic has defied every ultimatum that NATO has given him, including the one that led to air strikes in March 1999. He has no interest in peace as long as the war helps him rally Serbian nationalism, a key part of his power base. Besides being the cradle of Serbian civilization, Kosovo is also a legal province of Serbia and an integral

Kosovo is not an accident. It didn't just happen. It is the product of mistakes. The biggest mistake is assuming that by ignoring a problem, the West in general and the US in particular can stay uninvolved. The lesson is that this is not an option, that in today's world the real option is learning how to involve sooner, smarter and therefore smaller.⁸²

part of Serbia's national identity. As one reporter put it, the United States is "urging Serb leaders to surrender peacefully something that for generations nations have gone to war to protect: a piece of sovereignty."⁸³

Sense of Urgency. (-) It is the opponent's perception of a sense of urgency that is critical. NATO tried to convey a sense of urgency by giving several ultimatums during the early stages of the current crisis. Initially it worked in October 1998 when Milosevic backed down and agreed to negotiate after the US gave an ultimatum to negotiate a settlement or suffer air strikes. Subsequent ultimatums during and after the Rambouillet peace talks were less credible because they were not accompanied by visible signs of a willingness to carry out the threats until 18 February when the US deployed additional fighter aircraft to the

region. Moreover, Serbia knew that any NATO action would not be immediate as long as unarmed Organization for Security and Cooperation in Europe (OSCE) monitors were in Kosovo. When the Kosovars initially failed to sign the Rambouillet agreement, they took pressure off of Milosevic and gave him an extra three weeks to plan his strategy to counter NATO. NATO and the United States has a history of making threats and then not carrying them out, so the threat of air strikes was not taken seriously by Belgrade.

Domestic and International Support (+) Support for the Clinton administration's policy of diplomacy backed by the threat of force received favorable support, as did the decision to begin air strikes. An initial CNN/Gallup Poll during Operation Allied Force attacks showed 49% of the American public supported the air strikes. Public support for air strikes alone began to wane as the ethnic cleansing of Kosovo continued unabated despite daily air strikes. Support was initially low for sending in ground troops, although in the wake of media reports of Serb atrocities and ethnic cleansing the support for sending in ground troops has increased.

In general, international support was also favorable. Initially there were a lot of dissenting opinions on how best to persuade Milosevic to agree to a peace settlement. Perhaps this is another reason why Milosevic was so intransigent, because he was getting the message that NATO was undecided and divided on what to do. Additional, several nations inside and outside NATO were adamantly against any kind of military action against Serbia, especially Russia, China, Greece, Bulgaria and Macedonia. Moreover, Russia is strongly supportive of Serbia because of its historical and religious ties to that country. When air strikes began on 24 March 1999, all nineteen countries of NATO showed a united front in support of the strikes, even as Milosevic initiated a propaganda campaign to drive a wedge between them.

The campaign was being carried out without the blessing of the UN Security Council, partly because China held the rotating presidency in March and would have vetoed any vote of support for action in Kosovo. However, the Secretary General of the UN, Kofi Annan, did later endorse the air strikes, blaming Serbia's persistent rejection of a political settlement for the resort to force. "It is indeed tragic that diplomacy has failed, but there are times when the use of force may be legitimate in the pursuit of peace."⁸⁴

Opponent's Fear of Escalation. (-) The impact of coercive diplomacy is enhanced if the coercer quickly induces a fear of escalation in the opponent that he is unwilling to endure. Throughout the Kosovo crisis the US and NATO was unable to intimidate Milosevic into believing NATO would take significant actions against Serbia. This was partly because NATO actions did not match their words. Milosevic knew that he could play brinkmanship and win because he had done so in the past on numerous occasions. NATO sent the wrong message during negotiations when they said they would not send ground troops to Kosovo under any circumstances except as peacekeepers. Milosevic took this as another sign of NATO weakness. NATO did the same thing after air strikes began, giving up a key aspect of the threat of escalation. Faced only with the threat of air strikes, Serbia calculated it could outlast NATO's resolve to continue the strikes, while at the same time carrying out a key goal of re-engineering the ethnic composition of Kosovo. Milosevic gambled correctly that air strikes would be ineffective against the paramilitary ethnic cleansing of Kosovo and appears willing to endure a great amount of damage to his nation's infrastructure in order to outlast NATO resolve. It remains to be seen whether NATO has the long-term resolve and public support to sustain operations long enough to inflict adequate damage to Milosevic's power base to compel him to comply with NATO demands and to deny him a military victory in Kosovo. NATO has already publicly placed constraints on the air campaign, placing most targets in the heart of Serbia off limits in the initial phases of the campaign.⁸⁵

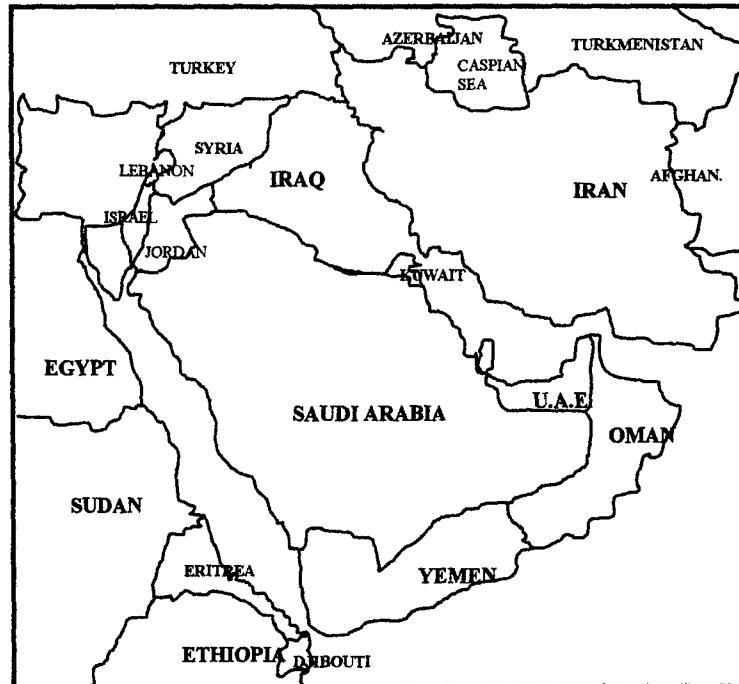
Clarity Concerning Terms of Settlement. (+) NATO has been very clear on the terms required for crisis settlement. As outlined in the Rambouillet peace agreement, Serbia is to withdraw forces from Kosovo back to pre-hostility levels, re-instate autonomy for Kosovo (nullified by Milosevic in 1989) and allow NATO peacekeeping troops inside Kosovo to monitor the terms of peace. In the wake of extensive NATO air strikes and the Serbian ethnic cleansing and ensuing humanitarian crisis, the Rambouillet peace agreement may have to be modified.

The Quiet War With Iraq

Tensions between Iraq and the US-led Gulf coalition flared again in November and December 1998. Iraq continued to defy the United Nations, concealing equipment that could be used to make biological

weapons, blocking interviews with workers at suspicious sites, and lying about sealed documents detailing past uses of chemical agents. Out of sheer frustration and in an effort to compel Saddam Hussein's regime to cooperate with UN weapons inspectors, the United States and its allies launched Operation Desert Fox on 16 December 1998. The four-day campaign attacked over 90 targets including missile and warhead research and development and production sites, airfields and air defense sites, and garrison sites of the special Republican Guard security forces.

Attacks involved over 650 aircraft sorties and the launching of 325 Tomahawk and 90 conventional air-launched cruise missiles. The US claimed that 85% of the air strikes hit their target, destroying fourteen and severely damaging 26 targets. A primary goal of the air strikes was to degrade Iraq's capability to produce and employ weapons of mass destruction, which the US says was set back by two years during the attacks.



A defiant Iraq retaliated by challenging the two no-fly zones imposed over Iraq at the end of the Gulf War. They sent fighter aircraft to violate the no-fly zones and to lure coalition aircraft into air defense traps. Since January 1999 the coalition has waged a low-level, 'quiet' war of attrition against Iraqi air defenses, responding to air defense provocations with retaliatory air strikes. Meanwhile, economic sanctions imposed during the Gulf War continue in place.

Clarity of Objective. (+) The objectives of Desert Fox were to degrade Iraq's WMD capability, weaken Hussein internally by damaging Republican Guard and internal security forces, and reduce Hussein's hold over the population by targeting radio and television sites.⁸⁶ It is doubtful whether the first objective was reached or not. Overall, the United States and the coalition are trying to contain Hussein and have adopted a policy aimed at replacing him by trying to instill internal unrest that would unseat Hussein. The United

States has implemented the Iraq Liberation Act, which has set aside \$97 million to support Iraqi opposition groups, including the main anti-Hussein coalition, the Iraqi National Congress.

Strength of Motivation. (+) Clinton was highly motivated politically to continue a policy of containment and work towards Hussein's overthrow. Under the unique circumstances of his presidency (he has never served in the armed forces, he was impeached for lying about a scandalous affair with a White House intern, he has been accused of having no credible foreign policy, etc., etc.) he did not want to get the United States entangled in a full-scale war. However, he also could not afford to back down from the crisis since that would make him look impotent to the rest of the world community and could have a negative impact on US interests throughout the world.

Asymmetry of Motivation. (-) Hussein's very life and continuation as leader of Iraq is at stake, so the asymmetry is in Hussein's favor. Hussein is willing to accept a great deal of punishment and destruction to maintain his hold on power. He has even gone so far as to intentionally withhold food and medicine from Iraqi children to bolster his claims that UN sanctions are killing over 6,000 Iraqi children every month. Hussein is trying to "wage a war of attrition against the United States, trying to force the United States to expend resources on small inconclusive skirmishes"⁸⁷ and weaken American resolve.

Sense of Urgency. (-) There was no sense of urgency conveyed in Desert Fox and in the ongoing test of nerves in the no-fly zones. The US seems willing to wait for long-term results in the crisis, hoping that the constant pressure of occupying Iraq from the air and the economic sanctions will create internal dissension that will lead to the ouster of Hussein. Hussein feels no sense of urgency as long as he is controlling events in Iraq while the US simply reacts to his initiatives.

Domestic and International Support. (+) During Desert Fox there was general public support for the attacks, but public will was never really tested because the attacks only lasted four days. There was considerable doubt about the timing of the attacks since they began on the eve of impeachment proceedings against Clinton.

In the international arena, Germany, Spain and Canada endorsed the attacks. France was against the attacks but put the blame for the attacks on Iraq. Russia and China were angrily opposed. Arab nations were generally supportive but worried that the crisis could escalate out of control. After Desert Fox, as the

war of attrition set in, some dissension began to appear among various countries that wanted to resolve the situation by lifting economic sanctions either partially or entirely. Saddam tried continuously to cause further dissension among allies, on the one hand making diplomatic overtures to Jordan's new leader and on the other threatening Egypt and Turkey and other countries with missile attacks. Hussein tried to appeal to the cause of Arab unity by urging all Arabs to rise up against what Iraq perceives as anti-Arab oppression. Iraq also tried to appeal to the international community's sense of humanity by claiming that Iraqi children were dying because of a lack of food and medicine. This appeal fell flat when it was learned that there were large stores of food and medicine in warehouses that Hussein was withholding in order to garner support for lifting economic sanctions against Iraq. Hussein's attempts to break the resolve of the coalition have so far backfired and have further isolated him from the rest of the world. He is beginning to show signs of backing down from his defiance against the United Nations. While some countries do not agree with United States methods, there is still general support for a policy of containment while searching for other options (including the ouster of Hussein), though time is on Hussein's side. The United States over time is "becoming increasing isolated in its Iraq policy as a growing number of Security Council members and Arab nations support lifting the embargo on Iraqi oil sales or relaxing sanctions in other ways to relieve the suffering of the Iraqi people."⁸⁸ Hussein hopes with his defiance to raise tensions and polarize attitudes in the UN against the American position. A core group opposed to the United States position on Iraq has formed around Russia, China, France, Brazil, Malaysia, and Namibia.

Opponent's Fear of Escalation. (+) The United States has shown in the past its willingness to escalate the use of force. In September 1994 when Iraq sent two divisions towards the Kuwait border, the United States carried out a massive re-deployment of forces to the Gulf during Operation Vigilant Warrior. This show of American rapid response capability and commitment to the region defused the crisis and Iraq removed its divisions from the area. In September 1996 Hussein again tested American and UN resolve by refusing to cooperate with UN weapon inspectors. The United States launched cruise missile attacks that convinced Hussein to re-establish cooperation.

The most recent example of American willingness to escalate operations was Operation Desert Fox. Hussein may not truly believe that the United States is willing to escalate to full-scale war again, but it has

been shown that he does respond to the application of coercive force. However, many think that the only way to finally resolve the crisis is to remove Hussein from power, and nothing short of a coup or full-scale war will make that happen.

Clarity Concerning Terms of Settlement. (+) The United States and the UN have made it clear that they want to guarantee Iraq has no WMD capability and Hussein is removed from power. Only then will the no-fly zones be eliminated and the economic sanctions lifted.

Predictions For Crisis Resolution

In international crises there are many opportunities for misperceptions and misunderstandings about an adversary and for unintended consequences to occur. In both the Iraq and Kosovo crises the United States and its allies have gone to great lengths to ensure their objectives and warnings have been made very clear to the adversary. In the end it comes down to which side has the greater interests at stake and the greater resolve to endure the crisis until it ends favorably for them. In both crises, each side has been playing a sort of international game of chicken, trying to convince the other side that the cost of continuing the status quo is greater than stopping the crisis on someone else's terms. If the coercer can convince the adversary that it will ultimately prevail then the coercer will win because the adversary will try to avoid the worst outcome (defeat) and settle for the second worst outcome (concession).⁸⁹ It is crucial that the coercer not only continue to use military pressure but also constantly articulate its intentions and objectives to the adversary to show its resolve.

Even with all or most of the above conditions present and in favor of the coercer, there is no guarantee that the outcome of a crisis will be favorable. Much of the leverage in coercive diplomacy lies in making the opponent believe that conditions are against him and that the cost of continued action will be greater than complying with a coercer's demands. Moreover, as George points out, "whether a (coercive diplomacy) strategy will work in any case rests in the last analysis on psychological variables."⁹⁰ He further implies that there is a high chance of misperceptions and miscalculations by either side that prevent any prediction of the adversary's behavior. There are just too many variables to make an accurate prediction, which is why using a strategy of coercive diplomacy is so dangerous. When the stakes are low it is fine to use. When the stakes

are high, a coercer had better be prepared to escalate as far as it takes, even to the point of all-out war or they will fail in their strategy.

Current conditions look favorable for the United States in the Iraq crisis as long as the United States is willing to endure a long-term strategy of containment. Diplomatic and economic efforts take longer than military actions to show results. A case in point is the fact that nine years of economic sanctions are having their toll on the civilians, but are not impacting Hussein and his circle of power. American diplomatic efforts have been almost nonexistent because of the intransigence of Hussein, though there are small signals that the strategy against Iraq since Desert Fox may be working. Iraq pulled out most of its heavy surface-to-air missiles from the no-fly zones, and there have been reports of internal unrest, including the execution of senior military leaders to quell dissension or punish them for their failures against coalition aircraft, and internal riots by Shiite Muslims over the killing of a clergyman. Moreover, Iraq continues to be isolated in the region from other Arab nations that want to see Hussein deposed as much as the United States does.

In the Kosovo crisis the conflict of interests between NATO and Milosevic is extreme after almost a decade of on-again, off-again clashes. Neither side is willing to back down, so it has become a test of NATO resolve against Serbian nationalism and Milosevic's obsessive desire to stay in power. Time appears to be on Serbia's side. Milosevic can stoke nationalistic support as long as NATO continues to attack. NATO on the other hand needs a quick victory or risks disunity within the alliance. This could force NATO to stop its attacks whether they have accomplished their objectives or not, and Milosevic would win. If NATO can persist until Milosevic caves in to the destructive power of the air strikes, then NATO will win. However, it will be a bitter victory clouded by the fact that they were unable to stop the forced evacuation of Kosovo and must now deal with the ensuing humanitarian crisis that NATO had hoped to prevent.

Chapter Six

CONCLUSIONS

Both publics and policy makers should stop thinking of coercion as a silver bullet to solve intractable foreign policy dilemmas. Coercion is no easier, only sometimes cheaper, and never much cheaper, than imposing demands by military victory.

Robert Pape⁹¹

The post-Cold War environment is filled with many new threats to international stability, including an upsurge in nationalist movements and religious fundamentalism and an increase in the number of internal conflicts. In order to respond to a multitude of uncertain threats and challenges the United States must have a foreign policy that employs all elements of national power in a balanced and well-planned manner.

Coercive diplomacy is an important and useful strategy that the United States can use to carry out its foreign policy, as long as politicians and military planners understand its limitations. Coercive diplomacy is the combination of diplomatic efforts with the threat of military force. It is useful only under certain circumstances and is highly context-dependent. It is primarily aimed at compelling an adversary to stop doing something or to undo something it has done by threats of force or a minimal amount of gradually escalating force.

When using coercive diplomacy there are several military options available, ranging from a show of force to a full-scale war. Air, naval, ground and strategic nuclear forces have all been used alone or in combination to achieve political objectives. Historically, naval forces have been used more than any other element of military force, followed by land-based airpower and then ground forces. Air and naval forces tend to be more responsive and flexible and used for quick-reaction, short-term operations. Ground forces are used for more long-term operations and signal a very high level of commitment and resolve/ Nuclear forces have been used sparingly and only during crises involving the most vital national interests.

Using airpower to support coercive diplomacy, and more specifically the use of coercive air strikes, has become more frequent over time because of improvements in air forces power projection capability, flexibility, and the increased ability to deliver precision-guided munitions. Many experts, though, do not

believe that airpower can be a decisive element in conflict. They point to many instances, such as Operation Rolling Thunder in Vietnam (1965), Operation El Dorado Canyon in Libya (1985), and the Fall of Srebrenica (1994) where airpower failed to compel an adversary to meet demands. Airpower advocates counter with examples of their own. They point to operations such as Operations Linebacker I and II in Vietnam (1972), Operation Desert Storm in Iraq (1991), and Operation Deliberate Force in Bosnia (1995) that show that airpower may not have achieved results by itself but was a decisive factor in resolving the crisis.

Several foreign policy experts have studied the above crises and others in an effort to determine when and if coercive air strikes can be successful. Overall, there is no guarantee that coercive air strikes or any other form of coercion will work. The great appeal of coercive air strikes is that when they do work it is usually with less expenditure of time, effort, lives, and resources than other foreign policy options. The down side is that there is no fool-proof way to determine in advance if coercive air strikes will work. Alexander George argues that there are certain conditions that may lead to the success of coercive diplomacy, and by association, coercive air strikes. The presence of these conditions does not guarantee success, but failure is more likely if the conditions are not present.

When using coercive air strikes, foreign policy leaders and military planners should focus on the psychological effects of airpower, not just the physical destruction of targets. Conducting air strikes to maximize psychological impact will help quickly persuade an adversary to change his actions and will weaken his resolve to resist a coercer's demands. This will occur only if the coercer targets what the adversary values most, which in many cases is political power and the ability to carry out aggression or defend his country.

Experts disagree on the best use of coercive air strikes. Some argue that strategic bombing against leadership and population targets will be effective, although historically this has not been the case. Other experts argue that the adversary's fielded military forces should be targeted. They say the forces are the source of a leader's power and when they are threatened with defeat or actually defeated on the battlefield, the leader becomes impotent and paralyzed.

To be more likely to succeed, coercive air strikes should be employed in concert with all elements of a country's national power. Diplomatic, informational, military, and economic (DIME) elements should be employed together for maximum effect. Military planners do not always adequately consider diplomatic, informational or economic elements of power. This may be in part due to planning models that focus primarily on the military element without considering the linkage of the other elements. One model that may be useful when planning coercive strikes is the US Army CGSC MOOTW analysis matrix, which takes into account all elements of power.

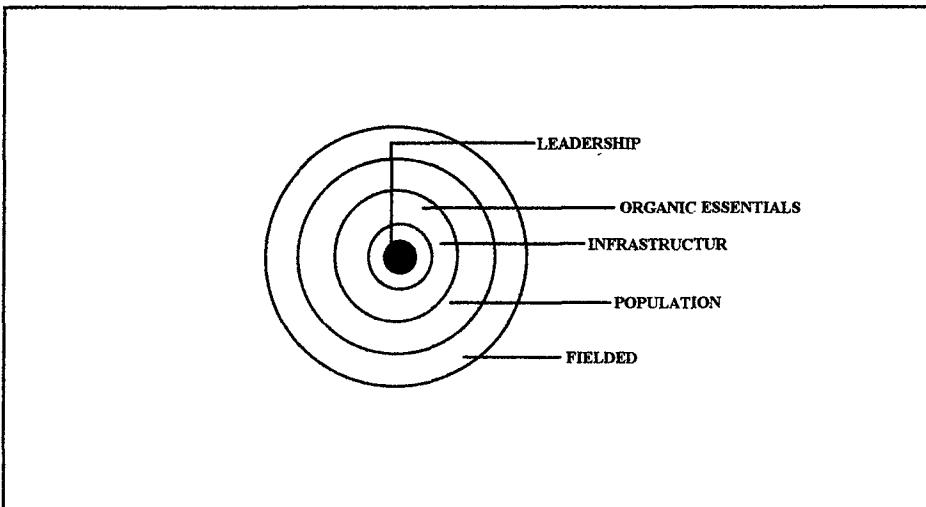
Ongoing crises in Iraq and Kosovo are real-time tests of the effectiveness of coercive air strikes. In Iraq, air strikes and a subsequent low-level war of attrition between coalition aircraft and Iraqi air defense forces have left Iraq isolated and weakened, but still defiant against the United Nations and the US-led coalition. The crisis has at least for now settled down into a long-duration test of resolve.

In Kosovo, an attempt to use the threat of air strikes to coerce Serbia to stop its ethnic cleansing of Kosovar Albanians has failed and NATO was forced to carry out its threats. The crisis has yet to reach a culminating point as of this writing, but events to date highlight the limitations of coercive air strikes, including their limited effectiveness in bad weather and the inability of air strikes to directly target paramilitary forces carrying out atrocities.

In response to the question, "Do air strikes work as a tool for coercive diplomacy?" the answer is a qualified yes. As Richard Haass said, "airpower offers a way of affecting internal conflicts while limiting the degree of engagement."⁹² Coercive air strikes are sometimes successful, but never when carried out in a vacuum, just as any element of national power would be unlikely to succeed when used by itself. Without the threat of the use of ground troops (the ultimate statement of resolve) an adversary can simply absorb the air strikes and wait out the coercer. The winner in such a situation will be the side with the greater motivation to not capitulate. History has shown that this will almost always be the adversary instead of the coercer. While certain conditions have been identified that would favor the use of coercive air strikes, the conditions themselves cannot guarantee success. Moreover, it is difficult to determine in advance if those conditions exist, adding more uncertainty to the use of coercion. Much of the utility of coercive air strikes comes from the threat of air strikes or the threat of inflicting greater damage than has already been inflicted.

This threat causes the adversary to rethink his calculus of the costs versus benefits of not complying with the coercer's demands.

The cold realities of the post-Cold War world require constant readiness and willingness to use force to oppose activities counter to American interests. Coercive air strikes can be an effective tool of coercion to help achieve foreign policy objectives as long as the limitations of airpower are understood, and as long as coercive air strikes are accompanied by strong diplomatic, informational and economic efforts.



Warden's Five Strategic Rings.

COL John Warden developed the concept of "the enemy as a system" as an analytical model to determine centers of gravity that could be targeted in a strategic air campaign. It helps determine which functions of an enemy system are critical and vulnerable.

The most critical ring is the leadership ring because it is the only element of the enemy that can make concessions, that can make decisions necessary to keep a country on a particular course, or that can direct a country at war. The goal of a strategic campaign should be to impose physical paralysis of the enemy system either by direct attack on the leadership ring or by indirect attack on the other four rings such that overwhelming psychological pressure is placed on the leadership and it capitulates.

The next most critical ring contains the organic essentials, those facilities or processes without which the state or organization cannot maintain itself. Damage to organic essentials such as electricity and petroleum products can lead to the collapse of the enemy system, make it difficult or impossible to maintain a certain policy or to fight and can have internal political or economic repercussions that are too costly for the enemy to bear.

The third most critical ring is the infrastructure ring, containing the enemy state's transportation system. This includes rail, airlines, highways, bridges, airfields, ports, and the ability to move goods and services from one place to another.

The fourth most critical ring is the population. Besides the moral implications, it is very difficult to attack the population directly because there are too many targets and, in many cases, the population may be willing to suffer enormously before it will turn on its own government.

The last ring is the fielded military forces of the enemy state. Instead of looking at the fielded forces as the most important aspect of a state, Warden says that they are not necessarily the primary center of gravity in a particular case.

SOURCE: John Warden, III, COL, USAF, *The Enemy as a System*, Unpublished Article. Air Command and Staff College, Maxwell AFB, AL, 3 January 1993, available on-line at <http://www-cgsc.army.mil/usaf/Pubs/enemysystem.htm>.

APPENDIX (1)

Country X as a Candidate for Air Attack

This format, based on a historical example, can be used for the systematic study of a country as a candidate for a potential air campaign. This format is a tool that may aid your center of gravity analysis. The format is based on a research paper written by Capt Thomas D. White for the Air Corps Tactical Schools academic year 1937-38. The paper, Japan as an Objective for Air Attack, is on file with the Air Force Historical Research Agency, Maxwell AFB, Alabama. Its "national structure" categories may have served as the basis for Warden's Strategic Rings. These categories have been modified in our version to reflect their current nomenclature. Many "antiquated" notions about the strategic employment of airpower have also been "cleaned up" in our version. The applicability of this format to analysis of pre-industrial nations remains somewhat limited.

Section I: Introduction

1. PURPOSE. This study format is designed to analyze the economic, political, and military structure of X as a candidate for air attack. All sections will not apply in all cases.
2. SCOPE. Determine the scope of your study based on the available guidance. For example: This investigation is made with the point of view cited from within X. No speculation is included as to possible locations of forward bases. Likewise the specific strength of the required air force has not been considered.
3. GUIDANCE. The national structure of a country may be divided into five general classifications:
 - a. Fielded military forces.
 - b. Population.
 - c. Infrastructure.
 - d. System essentials.
 - e. Leadership.Each of the above elements, as they exist in X, will be considered in the following sections as a possible candidate for air attack.
4. MAPS. (X) maps have been appended.

Section II: Air Force Objectives

5. GENERAL PRINCIPLES.
 - a. The socioeconomic structure of modern nations is highly integrated. The rapid parallel destruction of selected critical vulnerabilities associated with a nation's centers of gravity may bring a succession of collapses in related areas until the entire system's structure collapses or the concerted pressure persuades the enemy's leadership to end the conflict.
 - b. A vital objective of air forces is affecting such centers of gravity. Air and space forces so employed exploit to the maximum their outstanding capability to reach and affect distant surface targets of whatever character; aerospace power accomplishes the objectives of strategy by assuming the strategic offensive.
 - c. Since aerospace forces can fly over natural obstacles and fielded military forces, they can reach and affect any center of gravity known to exist within the enemy national territory. Affecting such centers of gravity may be constrained by the number of individual targets needed to achieve the desired effects, by limitations in friendly capabilities, by political or moral considerations, and by the opposition of air defenses.
6. AIR DEFENSE. It is axiomatic that air defenses can reduce the efficiency of, but not prevent, air attack.
7. IDEAL AEROSPACE OBJECTIVE. From the above it follows that the ideal objective for aerospace attack are undefended centers of gravity of the enemy national structure, consisting of a number of individual targets.

8. US OBJECTIVE IN WAR WITH X.

- a. The political and economic history of this country indicates that in a war, the US national objective should be to force political acquiescence on the part of our adversary.
- b. Achievement of political acquiescence involves the acceptance and observation by an enemy of certain expressed policies and limitations of action and does not necessarily require the occupation of enemy territory. If acceptance of terms can be forced without such physical occupation and with equal effectiveness and greater economy, then such occupation is unnecessary.

9. APPLICATIONS OF PRINCIPLES TO THIS STUDY. Succeeding sections of this study will endeavor to prove:

- a. That X is a highly structured, modern nation, integrated into the world economy, and therefore, in general, vulnerable to air attack.
- b. That within X there are centers of gravity consisting of a finite number of targets or target systems.
- c. Affecting such centers of gravity with air and space forces can accomplish, or make a decisive contribution to, the probable national objectives in a war between the United States and X.

Section III: Environment

10. GEOGRAPHICAL. Description of the key physical characteristics of the country being studied, to include location, size, climate, regional significance, and topography.

11. POPULATION. Most recent population figures available, giving significant ethnic and socioeconomic breakdown.

12. NATIONAL CHARACTER. Description of the culture, religion, political systems, and recent history of the country.

13. ECONOMY. Description of the key elements of the economy of the subject country. Including, as a minimum, the economic system, government economic policy, international trade, and domestic economic base.

14. POLITICAL-MILITARY FOUNDATION. Leadership personality and training, government structure, national defense organization, and international relations.

15. SUMMARY. Briefly summarize the preceding information directly relating to the suitability of the subject country as a candidate for air attack.

Section IV: Fielded Military Forces

16. NATIONAL MILITARY POLICY. Statement of the expressed and de facto national military policy of X derived from official statements, military actions, and all-source intelligence. Include at a minimum:

- a. Doctrine.
- b. Influence of geographic and economic factors.
- c. Perceived greatest threat.
- d. Other planning factors.

17. DEFENSE ESTABLISHMENT. Describe the organization of the armed forces and relative importance of each service in their national strategy.

18. COMMAND, CONTROL, AND COMMUNICATIONS. Examine the mechanisms or systems the various branches of the military use to control their operations. Determine their control philosophies (highly centralized control? Auftragstaktik?) and the relative importance of these in their doctrine and operations. Also examine the ability of X's military to gather and interpret intelligence information, as well as its ISR assets (indigenous and external).
 19. WEAPONS OF MASS DESTRUCTION (WMD). Examine the nature, numbers, and force organization of WMD assets, if organized as a military force.
 20. SPACE. Provide capabilities, numbers, organization, mission, and employment concepts of X's military or military-capable space forces and extra-theater ballistic weapons.
 21. AIR. Provide capabilities and total numbers of aircraft and theater ballistic weapons by mission, organizational structure, key elements, and employment concepts. (Provide map of air bases as appendix if required.) If separate naval or land air arms exist, describe them here.
 22. LAND. Provide the overall capabilities and size of the land forces (including trained reserves and internal security organizations with land combat capabilities), organizational structure, missions, and employment concepts. If separate air or naval land or amphibious forces exist, describe them here.
 23. SEA. Provide capabilities and numbers of naval forces, manpower, organizational structure, missions, and employment concepts. (Provide map of naval bases as appendix if required.)
 24. UNCONVENTIONAL WARFARE. Examine the nature, capabilities, number, organization, and employment concepts of X's special operations, unconventional warfare, irregular, and terrorist forces.
 25. SUMMARY. Summarize the strengths and weaknesses of the armed forces. Should address comparative advantages/disadvantages with other regional powers or potential adversaries. Answer the question, "Can the armed forces perform their mission?"
 26. ARMED FORCES AS A CANDIDATE FOR AEROSPACE ATTACK. Are the armed forces a national strategic center of gravity that should be attacked to achieve US national objectives? (Justify.) Also look for operational centers of gravity within the armed forces.
 27. ARMED FORCES COUNTERAIR/COUNTERSPACE CAPABILITY. Assessment of the ability of the armed forces of X to oppose an air campaign should include potential enemy offensive counterair capability and geographic influences in addition to air defense capability.
- Section V: Population**
28. FOOD SUPPLY. Examine the structure and connections of the food industry in country X. Examine external trade, the distribution system, dietary requirements, etc. Address the vulnerability of the food supply and distribution system.
 29. CLOTHING. Examine the structure, importance, and vulnerability of the textile and garment industry.
 30. SHELTER. Examine the vulnerability of the populace to deprivation of shelter through attacks on housing structures. Seasonal weather conditions will be a factor.

31. PUBLIC HEALTH. Examine the vulnerability of the populace to disruption or deprivation of the health care system. While most of the items studied in this category will not be moral or legal targets, it is important to understand their "connectivity" to other elements of X's economy.

a. Hospitals/direct health care. Assess the importance of the direct health care system in maintenance of the population's health and morale.

b. Sanitation/water supply. Assess the effect of attacks on the water supply and sanitation systems.

c. Public Utilities. Assess the vulnerability of the population's health to indirect or tangential attacks on supporting utilities, like electricity, communications, and sanitation.

32. AGRICULTURE. Direct attack of the agricultural activities of any nation is almost always impractical. However, indirect attack on food processing capability and disruption of lines of communication should be considered as an additional impact when assessing infrastructure.

33. BASIC INDUSTRY. Analyze the concentration of basic industries geographically and economically, with emphasis on potential population vulnerabilities.

34. INFORMATION. Analyze the importance of cultural, political, and economic information flow on the well-being and morale of the populace. Is the population potentially vulnerable to manipulation of opinion or information? If so, where and how?

35. SUMMARY. Attacks on population targets must be carefully examined for potential public perception problems as well as such factors as time lags for attacks to show effect, resources required, cost effectiveness, etc. In many cases, the results of this part of the analysis can be used to rule out targets or decide which elements of X's systems not to attack.

Section VI: Infrastructure

36. COMMUNICATIONS. Assess the extent to which X depends upon its communication systems.

a. Telecommunications. Assess the degree of dependence on conventional telephone, cellular phone, fiber optic and microwave networks. Assess the system for vulnerabilities and the impact on other industries/systems of disruption in all or part of the telecommunication system.

b. Broadcast Media. Assess the dependence on and vulnerability of radio, broadcast television, cable, and other broadcast networks to potential air attack. Assess the impact on other industries/systems of disruption in all or part of the broadcasting system.

c. Information flow. Analyze the systems with which X's leadership, population, and economy share information and determine potential vulnerabilities within those systems. Assess how important the connectivity of such systems as computer networks are to the functioning of the leadership, economy, etc.

37. ELECTRICAL POWER. Determine the extent to which the leadership, population, and industry depend on electrical power. Examine the power production and distribution networks for dispersal/concentration of generating capacity, interconnections, and possible choke points.

38. ROADS. Assess the relative importance of the road system compared to other modes of transportation. Should include an analysis of ability to utilize excess capacity during emergencies and reconstitution potential.

39. RAILROADS. Assess the relative importance of railways in comparison to other modes of transportation. Include number of potential choke points, availability of rolling stock, and reconstitution potential at a minimum.

40. SHIPPING. Assess the relative importance of merchant shipping, both international and internal, in comparison to other modes of transportation. Include size of the merchant marine, availability of port facilities, and reconstitution potential at a minimum.
41. CIVIL AVIATION. Assess the relative importance of air transportation for essential services in comparison to other modes of transportation. Numbers and capabilities of civil aviation assets available, major domestic and international airports, and reconstitution potential at a minimum.
42. SUMMARY. Summarize the potential effect of attacks on infrastructure, emphasizing the synergistic effects in combination with attacks on other target sets.

Section VII: System Essentials

43. PETROLEUM, OIL, AND LUBRICANTS (POL). Determine the primary source of POL, whether domestically produced or imported, and the extent of stockpiles. Assess the demand, both civil and military. Examine potential vulnerabilities of the production and distribution systems.
44. STRATEGIC MATERIALS. Search the available data to determine if there is a single commodity, or small group, of such vital importance that destruction/disruption of production or reserves would constitute a decisive factor in the collapse of X's national structure or will to fight.
45. MILITARY PRODUCTION. Determine the source of military equipment, whether imported or indigenously produced. Analyze the potential vulnerability to determine whether or not any of its elements should be effectively attacked.
46. WMD. Examine the sources of raw materials and the production system for X's weapons of mass destruction program, if one exists. Determine potential vulnerabilities or bottlenecks. Be sure to examine sources and production capabilities external to X along with indigenous production.
47. SUMMARY. Briefly indicate the likelihood of achieving campaign objectives by striking key target sets identified by your analysis of enemy system essentials.

Section VIII: Leadership

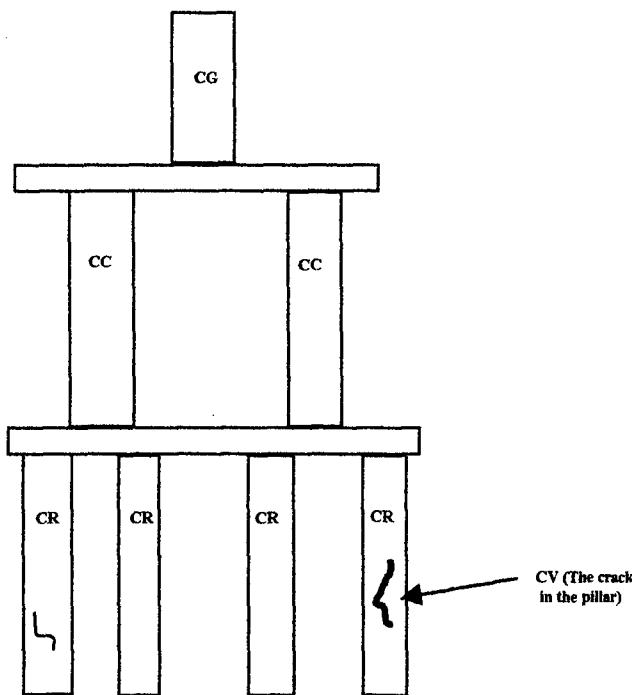
48. KEY PEOPLE/INSTITUTIONS. Identify the leadership of the country by name and position, if possible, and assess relative influence. Examine potential vulnerability to attack. Examine possibilities for indirect attack if direct attack is not feasible or legal.
49. CONTROL SYSTEMS. Identify and analyze the systems, organizations, and individuals responsible for maintaining the leadership's control of the military and the general population. Examine for potential vulnerabilities.
50. OPPOSITION. Identify and analyze patterns of opposition to X's ruling regime. Examine each group's importance, popularity, degree of hostility, extent of control, physical resources, and any other relevant factors. Examine legal, quasi-legal, and underground groups. If an opposition group controls large portions of X, consider conducting a full leadership analysis (i.e., run through each portion of this section), if not a complete, independent Country X study for each such group.
51. COMMUNICATIONS. Identify the key communications systems used by the leadership to exercise control. Examine for potential vulnerabilities.

52. STRATEGIC CAPABILITIES/ASSETS. Identify and analyze those systems, capabilities, or organizations that give the leadership unique prestige, power projection, or coercion/intimidation capabilities, both at home and abroad. These will vary greatly from country to country, but understanding them is vital to fully appreciating (and affecting) the country's leadership. This section may (and probably will) include things examined in other sections, but they should be examined here for the unique advantages they give the leadership. This may include such things as elite military organizations (especially if used to keep the leadership in power), weapons of mass destruction programs, long-range aircraft and missiles, unique economic strengths or market niches; the list is almost endless. One or more of these, however, will almost always be a center of gravity. Examine for potential vulnerabilities.

53. EXTERNAL POLITICS/ALLIANCES. Identify and analyze the country's role in its region and the world, as well as its relationships with other individual nations. Identify any traditional antagonisms, historical or cultural connections, systems of alliances, etc. If the leadership's perspective on these relationships differs from that of the populace or significant groups within it, identify the differences and their importance. Examine these relationships for potential vulnerabilities or exploitable aspects.

54. SUMMARY. From the above analysis, identify key leadership targets and determine the feasibility and effectiveness of attacking them.

SOURCE: *Air Campaign Planning Handbook*, Joint Doctrine Air Campaign Course, College of Aerospace Doctrine, Research and Education, Air University, Maxwell AFB, Alabama.



Example of CG-CC-CR-CV Model. Source: Center of Gravity Analysis Briefing, Joint Doctrine Air Campaign Course, Center of Aerospace Doctrine, Research and Education, Air University, Maxwell AFB, AL, March 1999.

Dr. Joe Strange developed the CG-CC-CR-CV Model to build on the concept of center of gravity (instead of reinventing it) and to explain the relationship between centers of gravity and critical vulnerabilities.

Centers of Gravity (CG): Primary sources of moral or physical strength, power and resistance.

Critical Capabilities (CC): Primary abilities which merit a center of gravity to be identified . For example, for a leadership center of gravity, what does the national leader have to be able to do to function as a center of gravity (stay alive, stay informed, communicate with his government, military, and population, and remain influential).

Critical Requirements (CR): Essential conditions, resources and means for a critical capability to be fully operative. For example, critical requirements for the critical capability of a leader to stay alive would be having the resources and means to be protected from all threats.

Critical Vulnerabilities (CV): Critical requirements or components thereof which are deficient, or vulnerable to neutralization, interdiction or attack in a manner achieving decisive results. These are the "points" where friendly force capabilities should be applied.

The critical capabilities (CC) and critical requirements (CR) are the links between the center of gravity and its critical vulnerabilities.

SOURCE: Dr. Joe Strange, *Centers of Gravity and Critical Vulnerabilities: Building on the Clausewitzian Foundation So That We Can All Speak the Same Language*, Marine Corps War College, Marine Corps University, Quantico, VA, 1996.

APPENDIX (3)

**U.S. ARMY COMMAND AND GENERAL STAFF COLLEGE (CGSC)
MILITARY OPERATIONS OTHER THAN WAR (MOOTW)
ANALYSIS MATRIX**

EXAMPLE QUESTIONS FOR ANALYTICAL AND DEDUCTIVE PROCESS

This appendix is provided as an example of the types of questions a planner/analyst should consider when using the CGSC MOOTW Analysis. The stated questions are only examples and should be used as suggestions of "how to think" not "what to think."

CATEGORY	SAMPLE QUESTIONS
I. NATIONAL PROBLEM	
a. Statement of the National Problem.	What guidance has been given by higher HQ or the NCA? If specific guidance is not available, what does the military planner perceive as the national problem?
b. Relevant National Interests.	Which U.S. national interests are involved in the situation? How significant is the involvement? Are any national interests in conflict?
II. STATED OR PERCEIVED MILITARY MISSION	What is expected of the military instrument of national power? What conditions can the military instrument of power produce that will support the achievement of National Security Objectives?
III. NATURE OF PHYSICAL ENVIRONMENT	
a. Geography.	What is the general nature of the geography of the potential area of operations? What is the geostrategic significance of the nation? Does geography have a significant impact on the nature of the area of operations (natural obstacles/natural routes)? Will geography have an impact on the possible use of U.S. military forces and their sustainment?
b. Climate.	What is the general nature of the climate? Does it have any unique features? Has climate had a significant influence on the country or region of concern? Will climate have an impact on U.S. military operations (transport, air ops, artillery, troop health)?
c. Access from USA and U.S. bases.	How far is the AO from the USA and key base facilities? What physical features will have an impact on rail, sea, road, and air transport?
DEDUCTIONS:	How can the impact of significant aspects of the geography be summarized? What general types of U.S. military forces are capable of operating effectively in this physical environment? How can U.S. military forces be sustained in this environment? What tasks will have to be done to meet the challenges of the physical environment... what resources will they require?
IV. NATURE OF SOCIETY	
a. Population/Demographics.	What is the population density, distribution, and racial/ethnic composition?
b. History.	How did the society develop to its present state? Is there a history of internal and external conflict? Historical relations with USA? Is there a history of foreign alliances or dependency?
c. General Culture(s).	What are the significant religions and philosophies? What social classes exist... what is their significance? What are the social, political, religious, economic values of each class? Is upward mobility possible? If the country is a former colony, what cultural aspects are vestiges of the colonial power? What varying attitudes exist towards the USA?
d. Economy.	What is the economy based on? What are the effects of international trade? What is the distribution of land ownership? What is the distribution of wealth? Are there modernized production facilities? Economic ties to the USA? Is there a dependency on foreign aid? Is there a significant national debt?
e. Politics.	What is the general nature of the Govt.? How effective are the formal structures and institutions? How legitimate is the govt. in the opinion of various classes of society and areas of the country? How do changes in Govt. occur (elections, coups, revolts)?
f. Infrastructure.	What is the general nature of the infrastructure? What is the nature of the following systems: communications, roads, railroads, airfields, seaports, public health, schools, cities, water supply, food storage, & distribution, etc.?

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g. Military and Security Forces.	<p>MILITARY: What are the significant aspects of the organizational structure (C4I, locations, tasks)? What are the levels of professionalism and morale? What is the adequacy of equipment? What is the role of the military in this society? What are the loyalties of the military to elected leaders, un-elected elites, and the general population?</p> <p>POLICE: Apply the same questions to police forces.</p>
h. Potential Destabilizing Factors	
1. Government legitimacy and effectiveness.	What is the attitude of the people towards the government? Does National Will support the government and its policies? Are laws and policies implemented in an effective manner? Is corruption at a level that is acceptable to most groups of citizens?
2. Interest Groups and Organizations.	What interest groups have a significant effect on life in the region? Which groups are in conflict with the government and each other? Why? Which significant groups have no representation in the government? How are the groups organized? Consider trade unions, religious organizations, business interests, and the like.
3. Diverging Cultures.	What diverging cultures exist? Why are these groups pulling apart? Is there any effective mechanism to resolve conflict?
4. Perceived Relative Deprivation.	Do any segments of society perceive that they are not getting their fair share of resources? Why? Is modernization adding to or relieving this problem?
i. Insurgency(ies).	
1. Nature of Insurgency(ies).	What insurgent groups exist within the region? Are these groups significant to the situation that is being analyzed?
(a) Leadership.	Who are the leaders? How did they come to power?
(b) Ideology.	What is the ideology of the insurgent group? Is ideology significant to the group and its appeal in the region? Are there competing ideologies within the society?
(c) Organization.	What is significant about the insurgent organization? Who are its political, economic, military, and intelligence segments? Is the insurgency urban or rural? What is its command and control structure? Does the insurgency have a significant overt, public segment?
(d) External Support.	Is external support significant to the insurgent group? Who, how, what, and why? How might external support be halted? Is there a significant criminal connection?
(e) Strategy and Tactics.	What are the key elements of insurgent strategy? Evaluate effectiveness. Do tactics vary? How and why?
2. Nature of Government Response (Counter-Insurgency).	How generally is the government responding to the insurgency(ies). Bottom line: is the govt. response effective?
(a) National Strategy.	Is there an identifiable national Strategy? Does it pass the Feasible, Acceptable, Suitable (FAS) test? Would U.S. advisors be effective and welcome?
(b) Development.	Is the government effectively addressing causes of discontent? Are there negative effects of implementation?
(c) Social Mobilization.	Is the national information/PSYOP program supporting the National Strategy? Are people physically and emotionally involved in the nation-building process? Is the government effectively in contact with its people? Is there a significant feedback system?
(d) Intelligence.	Are the intelligence systems effective? Do they cooperate? What is the intelligence strategy? Who and what are the main sources of info? Are these sources adequate? Is the analytical and distribution system honest and effective? Can U.S. personnel and systems be of significant assistance?
(e) Effectiveness of Civil-Military Structure.	Does a framework exist for effective civil-military cooperation? Where is decisionmaking done and is it done effectively?
(f) Use of Force.	How frequent and how effective is the use of force? Does rule of law and civil authority prevail or does the military control all local operations? Is reduction of civil liberties taken seriously? Is force used discriminately? What is the level of noncombatant casualties? Is there an effective counterterrorist program?

DEDUCTIONS:	What actions might the U.S. take to resolve the problems of this society? What U.S. military forces might be effective? How? Will advisors be effective? Will indirect assistance suffice or will direct U.S. involvement be required and suitable? How much force structure and other resources might be required?
V NATURE OF EXTERNAL FORCES.	Are external forces significant to this situation? Check for both positive and negative influences.
a. Other Nations.	Is the relationship with neighbors and other countries significant? Is there significant trade, economic influence, or long-term hostility? Is another nation a sanctuary or sponsor for a hostile insurgent group? Are there remnants of Cold War polarity?
b. International and Transnational Forces.	Are there significant international and transnational forces or influences? Is the UN, Red Cross/Red Crescent taking any role in the region? Are there significant regional influences from religious, ideological, or cultural groups?
DEDUCTIONS:	How can the U.S. effectively influence external forces to help resolve the situation? Does the military have a role? What tasks and resources are required?
VI NATURE OF CRISIS	What is the direct cause of the current problem?
a. Critical Event(s).	What event triggered the problem? What is its scale? What are the potential long-term and short-term effects?
b. Accelerators.	What events or situations contributed to the instability of the region?
1. Economic Problems.	Were there any significant economic events or conditions?
2. Natural Disaster.	Did an event of nature help or directly cause the problem? How?
3. Government Reaction.	Did government actions (overreaction, underreaction, brutality, discrimination) add to the destabilization of the situation?
4. Recent Military Defeat.	Did a recent military defeat lower government legitimacy and effectiveness?
5. Religious Influences.	Does religion contribute to the instability of the region? How?
6. Ethnic Conflict.	Did previous ethnic conflict significantly effect the situation?
DEDUCTIONS:	Do we really understand the crisis? Can the U.S. have a direct influence on the cause/effects of the crisis? Can we best address the cause or the effects?
VI TIME	What is the impact of time as it affects the environment and key players?
DEDUCTIONS:	Is time on the side of U.S. interests? Are there any critical upcoming events that we can influence? Can we begin to conceptually phase our possible actions and commitment of resources?
VII LOGISTICS ESTIMATE:	What are the significant logistics support considerations for the operation? does the operation involve other than U.S. forces? Is the theater of operation mature or immature?
a. Geography.	What information is available from terrain and weather analysis? What national/international assets can provide this information? (Also see part III).
b. Supply.	What supply commodities are required for the operation, i.e., subsistence items, bulk petroleum, barrier materials, major end items, repair parts? What is available in the AO for procurement?
c. Facilities.	Has a Civil Engineering Support Plan (CESP) been developed for this operation, i.e. what facilities are available in the AO? What do we need to take with us and/or build once in the AO? (See part IV for other details).
d. Transportation.	What transportation networks are available to support the operation? What transportation assets (buses, trucks, trains and railcars, etc.) are available in the AO to support the operation? (See part IV for other details).
e. Maintenance	What facilities are available in the AO to support projected maintenance requirements, i.e. repairs, recovery and evacuation efforts, vehicle collection points, etc.? Are the facilities and equipment adequate (i.e., metric vs standard, safety requirements, etc.,) to support the operation?
f. Labor Resources.	What general and skilled labor forces are available in the AO to support the operation? Can the U.S. LOGCAP program provide the skills needed? What labor requirements do we want to fulfill with other than military forces? What additional requirements does this place on the supported forces, i.e., security, etc.?

g. Health Service Support.	What medical facilities are available in the AO to supplement organic military capabilities? What civilian professional personnel are available to augment military capabilities? Are these foreign medical assets compatible with military and national health requirements?
h. Personnel Service Support.	What administrative facilities are available in the AO to support the operation? Can the PSS requirements be supported by other than military resources, i.e. religious support, public affairs, postal operations, MWR support facilities, etc.?
i. Field Services and Field Sanitation.	What facilities are available in the AO to support operational requirements, i.e., shower/bath/laundry, clothing and textile repair, bakery and mess augmentation, etc.? Are assets available in the AO to support additional field sanitation requirements, i.e., refuse disposal, liquid and solid waste disposal, etc.?
j. SOF Support.	What additional and/or peculiar requirements will support SOF forces places on topics a-i above? What non-standard equipment will generate new support requirements?
k-l. Joint, Combined & Multinational Operations.	What is the Joint or Combined force organization? What are the U.S. force service support responsibilities for this operation? What interservice or national support agreements have been made for this operation? How much logistics interoperability (i.e., doctrine, equipment, etc.) exists with forces operating in the AO? What are the LNO requirements to support this operation?
m. Command, Control, and Communications.	What equipment and facilities are available in the AO to support the operation? What are the command and support relationships for the operation? What c3 interoperability exists within the forces (U.S./Multinational) assigned to the operation?
n. Political.	What is the government's response to our mission? (See part IV e for other details).
o. Legal (External).	What Host Nation Support agreements exist that can support this operation? How will local, regional, national or international laws affect the support planning (and operations) in the AO? What laws of War apply to this operation and what is the impact on support in the AO?
p. Other.	What other logistics planning considerations need to be applied to this operation, i.e. use of POMCUS or Force Provider sets, forward deployed LSE, type of support operations (split-based, intermediate staging bases or LOTS requirements), force-protection requirements, contingency contracting, support of other than military forces, post conflict requirements, etc.?
DEDUCTIONS:	What general types of U.S. support actions should be contemplated? What resources will they require? How should the actions of other than U.S. forces and their support resources be coordinated for the operation?
IX. When directed by Deliberate or Crisis Action Planning process... develop, evaluate, and recommend Courses of Action.	DIME
a. <i>Diplomatic.</i>	Is the State Department in a position to take positive action? How can we use diplomacy to directly address the problem and to support/explain our actions with the world community?
b. <i>Informational.</i>	Can we effectively influence the situation by active or passive use of information? Will U.S. and world media support the U.S. Government Course of Action? Can we effectively use PSYOP at the strategic, operational, and tactical levels?
c. <i>Military.</i>	What military capabilities can be applied to the situation?
1. Army.	Can land-oriented forces be effective? How? Is there a risk factor to committing ground troops? Can Army units be deployed in time to be effective?
2. Navy.	Can the Navy effectively project power from the sea in this situation? Is the operation worth the cost of diverting/committing Navy task forces? Does a shortage of land bases support a Naval commitment?
3. Air Force.	Can air power be used effectively and is it available? Are there bases within flying range of the Area of Operations?
4. USMC.	Is the potential Area of Operations near the sea? Are Marines located in or near the region?

5. SOF.	Can a rapid response by a small group of regionally-oriented personnel help resolve the situation? Do we need to further assess the situation by putting small numbers of Americans on the ground or near the region? Are the violent and non-violent SOF capabilities significant in this situation?
6. Space.	Should we move or augment any Space assets to assess or respond to the situation?
7. Transport.	What TRANSCOM assets can be significant? Is there a potential for a significant deployment or movement of materiel?
8. Joint C4I.	What type of C4i might be required for the U.S. response? How can we provide it?
<i>d. Economic.</i>	Can U.S. economic efforts have a significant impact on the situation? How?
DEDUCTIONS:	What general types of U.S. Action should be contemplated? What resources will they require? How should the actions and resources be coordinated?

Continue to formulate. Ask these sorts of questions, develop sources, collect information, and determine potential significance. This process must be continually updated. In time, however, most information is refined and clarified. Your analysis and deductions will become more accurate and focused to support military operations.

¹ T. H. White, *The Sword in the Stone*, G. P. Putnam's Sons, New York, 1939, 61, emphasis added.

² Alexander L. George, *Forceful Persuasion: Coercive Diplomacy as an Alternative to War*, United States Institute of Peace Press, Washington, DC, Second Printing, 1993.

³ Stephen J. Cimbala, *Coercive Military Strategy*, Texas A&M University Press, College Station, TX, 1998, 4.

⁴ Cimbala, *ibid.*, 14-15.

⁵ Richard N. Haass, *Intervention: The Use of American Military Force in the Post-Cold War World*, Carnegie Endowment for International Peace, Distributed by the Brookings Institution, Washington, DC, 1994, 3-5.

⁶ Haass, *ibid.*, 5.

⁷ Lynn E. Davis, as quoted by Curtis Willie in "The Grey Zone: The United States and the Illusory Zone Between Peacekeeping and Peace Enforcement," *Journal of Conflict Studies*, Spring 98, 27-48.

⁸ The White House, *A National Security Strategy for a New Century: National Security Strategy of the United States*, October 1998, iii-4.

⁹ The White House, *ibid.*, 4.

¹⁰ The White House, *ibid.*, 4-5.

¹¹ Robert W. Tucker and David C. Hendrickson, "The Imperial Temptation," published in *The Use of Force: Military Power and International Politics, Fourth Edition*, edited by Robert J. Art and Kenneth N. Waltz, University Press of America, Inc., Lanham, MD, 1993, 469.

¹² Thomas A. Bailey, *The Art of Diplomacy: The American Experience*, Appleton-Century-Crofts, New York, NY, 1968, 235-6.

¹³ Mark Peceny and Shannon Sanchez-Terry, "Liberal Interventionism in Bosnia," *The Journal of Conflict Studies*, Sprint 1998, 5-26.

¹⁴ Stephen J. Cimbala, *Coercive Military Strategy*, Texas A&M University Press, College Station, TX, 1998, 8-9.

¹⁵ Alexander L. George, *ibid.*, ix.

¹⁶ Alexander L. George, *ibid.*, 73.

¹⁷ Alexander L. George, David K. Hall, and William E. Simons, *The Limits of Coercive Diplomacy: Laos, Cuba, Vietnam*, Little, Brown, and Company, Boston, 1971, pg. 18.

¹⁸ Alexander L. George, *ibid.*, 4.

¹⁹ Alexander L. George, *ibid.*, xi.

²⁰ Thomas C. Schelling, *Arms and Influence*, Yale University Press, New Haven and London, 1966, 44.

²¹ Alexander L. George, *ibid.*, 4.

²² Alexander L. George, *ibid.*, 5.

²³ Alexander L. George, *ibid.*, 9.

²⁴ Alexander L. George, *ibid.*, 6-7.

²⁵ Alexander L. George, *ibid.*, 6-9.

²⁶ Alexander L. George, *ibid.*, 75-81.

²⁷ Alexander L. George, *ibid.*, 84.

²⁸ Barry M. Blechman and Stephen S. Kaplan, *Force Without War: U. S. Armed Forces as a Political Instrument*, The Brookings Institute, Washington, DC, 1978, 38-41.

²⁹ Blechman et al, *ibid.*, 44-45.

³⁰ Blechman et al, *ibid.*, 46.

³¹ Blechman et al, *ibid.*, 46.

³² Blechman et al, *ibid.*, 53-57.

³³ Blechman et al, *ibid.*, 50-52.

³⁴ Blechman et al, *ibid.*, 57.

³⁵ Most members of the US Air Force define airpower in terms of fixed and rotary wing aircraft and conventional and strategic missiles, i.e., not just USAF aircraft, but the aircraft and missiles of all branches of the armed forces.

³⁶ Blechman et al, *ibid.*, 39.

³⁷ Seumas Milne and Richard Norton-Taylor, "Air-Strike Diplomacy Ups The Odds," *London Guardian*, 14 October 1998.

³⁸ Frederick J. Kroesen, Gen, US Army (Ret), "Would You Really Rather Have Airpower?", *Army Magazine*, January 1999, 9.

³⁹ Dr. Richard H. Shultz, Jr., "Compellence and the Role of Air Power as a Political Instrument," *The Future of Air Power in the Aftermath of the Gulf War*, 171-192.

⁴⁰ Pape, *ibid.*, 57.

⁴¹ Blechman and Kaplan, *ibid.*, 67 and Eric Herring, *Danger and Opportunity: Exploring International Crisis Outcomes*, Manchester University Press, Manchester and New York, 1995, 1-33.

⁴² Blechman and Kaplan, *ibid.*, 67.

⁴³ Herring, *ibid.*, 4.

⁴⁴ George, *ibid.*, 41.

⁴⁵ George, *ibid.*, 44.

⁴⁶ George, *ibid.*, 45.

⁴⁷ Pape, *ibid.*, 351.

⁴⁸ George, *ibid.*, 57.

⁴⁹ Pape, *ibid.*, quoting David Johnston, 355.

⁵⁰ Misha Glenny, *The Fall of Yugoslavia: The Third Balkan War*, Penguin Books, New York, NY, 1996, 273.

⁵¹ Michael O. Beale, Major, USAF, *Bombs Over Bosnia: The Role of Airpower in Bosnia-Herzegovina*, Air University Press, Maxwell Air Force Base, AL, 1997, 34.

⁵² Stephen J. Cimbala, *Coercive Military Strategy*, Texas A&M University Press, College Station, TX, 1998, 104-106.

⁵³ Beale, *ibid.*, 31-39.

⁵⁴ George, *ibid.*, 61.

⁵⁵ Pape, *ibid.*, 357.

⁵⁶ Haass, *ibid.*, 54.

⁵⁷ As quoted by Group Captain A.P.N. Lambert, Royal Air Force, in *The Psychology of Air Power*, Royal United Service Institute, Whitehall, London, 1995, 54.

⁵⁸ Cimbala, *ibid.*, 83.

⁵⁹ Hosmer, *ibid.*, xv.

⁶⁰ Lambert, *ibid.*, 43-44.

⁶¹ Lambert, *ibid.*, quoting a 1952 study by A. Argent, 46.

⁶² Lambert, *ibid.*, quoting G. H. Questor, 46.

⁶³ Lambert, *ibid.*, 47.

⁶⁴ Lambert, *ibid.*, 48.

⁶⁵ Lambert, *ibid.*, 49.

⁶⁶ Hosmer, *ibid.*, xvi.

⁶⁷ Hosmer, *ibid.*, xvi.

⁶⁸ Lambert, *ibid.*, 49.

⁶⁹ Lambert, *ibid.*, 71.

⁷⁰ Lambert, *ibid.*, 72.

⁷¹ Lambert, *ibid.*, 72.

⁷² AFP 14-210, *USAF Intelligence Targeting Guide*, Headquarters, US Air Force, XOI, Washington, DC, 01 February 1999, 32.

⁷³ AFP 14-210, *ibid.*, 33.

⁷⁴ As taught in the US Air Force Joint Doctrine Air Campaign Course and mentioned in the *Air Campaign Planning Handbook*, Joint Doctrine Air Campaign Course, Center for Aerospace Doctrine, Research, and Education (CADRE), Air University, Maxwell AFB, Alabama, July 1998, 19-26.

⁷⁵ Pape, *ibid.*, 13.

⁷⁶ Pape, *ibid.*, 16.

⁷⁷ Pape, *ibid.*, 31.

⁷⁸ Pape, *ibid.*, 315.

⁷⁹ Thomas C. Schelling, *Arms and Influence*, Yale University Press, New Haven and London, 1966, v.

⁸⁰ Nicholas Burns, US Ambassador to Greece, quoted by Doug Bandow in "Hurtling Into The Kosovo Quagmire?", *Washington Times*, 4 February 1999, 17.

⁸¹ Philip Smucker, "Serbian Gunners Reluctant To Take On NATO Forces," *Washington Times*, 23 February 1999, 1.

⁸² Mitch McConnell, "Independence For Kosovo," *Washington Post*, 22 January 1999, 35.

⁸³ Charles Truheart, "U.S. Adds New Facet To Tough Global Issue," *Washington Post*, 23 February 1999, 13.

⁸⁴ Judith Miller, "The Secretary General Offers Implicit Endorsement Of Raids," *New York Times*, 25 March 1999, 1.

⁸⁵ Michael O'Hanlon, "Should Serbia Be Scared?," *New York Times*, 23 March 1999, 1.

⁸⁶ Michael Elliott, Joseph Contreras and John Barry, "Back to Battle Stations," *Newsweek*, December 1998 – January 1999, 44-48.

⁸⁷ Dana Priest, "U.S. Fires Missiles At Iraqi Jets In 'No-Fly' Zone," *Washington Post*, 6 January 1999, 1.

⁸⁸ Barbara Crossette, "U.S. More Isolated In U.N. On Keeping the Iraq Sanctions," *New York Times*, 12 January 1999, 1.

⁸⁹ Robert B. McCalla, *Uncertain Perceptions: U.S. Cold War Crisis Decision Making*, University of Michigan Press, Ann Arbor, Michigan, 1992, 186.

⁹⁰ George, *ibid.*, 81.

⁹¹ Pape, *ibid.*, 331.

⁹² Haass, *ibid.*, 97.

BIBLIOGRAPHY

ORIGINAL BOOKS AND MANUSCRIPTS

- Art, Robert J. and Waltz, Kenneth N., Editors, *The Use of Force: Military Power and International Politics*, Fourth Edition, University Press of America, Inc., Lanham, MD, 1993.
- Bailey, Thomas A., *The Art of Diplomacy: The American Experience*, Appleton-Century-Crofts, New York, NY, 1968.
- Barlow, Jason B., Maj, USAF, *Strategic Paralysis: An Airpower Theory for the Present*, Air University Press, Maxwell Air Force Base, AL, February 1994.
- Barnett, Jeffery R., *Future War: An Assessment of Aerospace Campaigns in 2010*, Air University Press, Maxwell Air Force Base, AL, January 1996.
- Beale, Michael, O. Maj, USAF, *Bombs Over Bosnia: The Role of Airpower in Bosnia-Herzegovina*, Air University Press, Maxwell Air Force Base, AL, 1997.
- Bergquist, Ronald E., Maj, USAF, *The Role of Airpower in the Iran-Iraq War*, Air University Press, Maxwell Air Force Base, AL, December 1988.
- Blechman, Barry M., and Kaplan, Stephen S., *Force Without War: U.S. Armed Forces as a Political Instrument*, The Brookings Institute, Washington, DC, 1978.
- Cimbala, Stephen J., *Force and Diplomacy in the Future*, Praeger Publishers, New York, 1992.
- Cimbala, Stephen J., *Coercive Military Strategy*, Texas A&M University Press, College Station, TX, 1998.
- Deptula, David A., Col, USAF, *Firing For Effect: Change in the Nature of Warfare*, Aerospace Education Foundation, Defense and Airpower Series, August 1995.
- Druckman, Daniel, *Human Factors in International Negotiations: Social-Psychological Aspects of International Conflict*, Sage Publications, Beverly Hills, London, 1973.
- Fadok, David S., Maj, USAF, *John Boyd and John Warden: Air Power's Quest for Strategic Paralysis*, Air University Press, Maxwell Air Force Base, AL, February 1995.
- Freeman, Chas. W. Jr., *Arts of Power: Statecraft and Diplomacy*, United States Institute of Peace Press, Washington, DC, 1997.
- George, Alexander L., Hall, David K., and Simons, William E., *The Limits of Coercive Diplomacy: Laos, Cuba, Vietnam*, Little, Brown, and Company, Boston, 1971.
- George, Alexander L., *Forceful Persuasion: Coercive Diplomacy as an Alternative to War*, United States Institute of Peace Press, Washington, DC, Second Printing, 1993.
- Glenny, Misha, *The Fall of Yugoslavia: The Third Balkan War*, Penguin Books, New York, NY, 1996.
- Goldstein, Frank L, Col, USAF and Findley, Benjamin F. Jr., Col, USAFR, *Psychological Operations: Principles and Case Studies*, Air University Press, Maxwell AFB, AL, September 1996.

- Haass, Richard N., *Intervention: The Use of American Military Force in the Post-Cold War World*, Carnegie Endowment for International Peace, Distributed by the Brookings Institution, Washington, DC, 1994.
- Habeeb, William Mark, *Power and Tactics in International Negotiation: How Weak Nations Bargain With Strong Nations*, The Johns Hopkins University Press, Baltimore, 1988.
- Herring, Eric, *Danger and Opportunity: Exploring International Crisis Outcomes*, Manchester University Press, Manchester and New York, 1995.
- Hosmer, Stephen T., *Psychological Effects of U.S. Air Operations in Four Wars 1941-1991: Lessons For U.S. Commanders*, RAND, Santa Monica, CA, 1996.
- Kearney, Thomas A., and Cohen, Eliot A., *Gulf War Air Power Survey Summary Report*, US Government Printing Office, Washington, DC, 1993.
- Lambert, A.P.N, Group Captain, Royal Air Force, *The Psychology of Air Power*, Royal United Service Institute, Whitehall, London, 1995.
- Magyar, Dr. Karl P. and Danopoulos, Dr. Constantine P., *Prolonged Wars: A Post-Nuclear Challenge*, Air University Press, Maxwell Air Force Base, AL, 1994.
- Martin, Jerome V., Lt Col, USAF, *Victory From Above: Air Power Theory and the Conduct of Operations Desert Shield and Desert Storm*, Research Report AU-ARI-92-8, Air University Press, Maxwell Air Force Base, AL, June 1994.
- McCalla, Robert B., *Uncertain Perceptions: U.S. Cold War Crisis Decision Making*, The University of Michigan Press, Ann Arbor, MI, 1992.
- Mets, David R., *Land-Based Air Power in Third World Crises*, Air University Press, Maxwell Air Force Base, AL, July 1986.
- Pape, Robert A., *Bombing To Win: Air Power and Coercion in War*, Cornell University Press, Ithaca, NY, 1996.
- Pray, John I. Jr., Maj, USAF, *Coercive Air Strategy: Forcing a Bureaucratic Shift*, Air University Press, Maxwell Air Force Base, AL, 1995.
- Schelling, Thomas C. *Arms and Influence*, Yale University Press, New Haven and London, 1966.
- Schow, Kenneth C. Jr., Lt Col, USAF, *Falcons Against the Jihad: Israeli Airpower and Coercive Diplomacy in Southern Lebanon*, Air University Press, Maxwell Air Force Base, AL, 1995.
- Shultz, Richard Jr., and Pfaltzgraff, Robert L. Jr., *The Future of Air Power in the Aftermath of the Gulf War*, Air University Press, Maxwell Air Force Base, AL, July 1992.
- Stedman, Stephen John, as quoted by Terrence Lyons and Ahmed I. Samatar in *Somalia: State Collapse, Multilateral Intervention, and Strategies for Political Reconstruction*, The Brookings Institute, Washington, DC, 1995.
- Treadway, C.G.C., Maj, USAF, *More Than Just A Nuisance: When Aerial Terror Bombing Works*, Air University Press, Maxwell Air Force Base, AL, February 1998.

Watts, Barry D., Lt Col, USAF, *The Foundations of U.S. Air Doctrine: The Problem of Friction in War*, Air University Press, Maxwell Air Force Base, AL, December 1984.

Weisburg, A. Mark, *Use of Force: The Practice of States Since World War II*, The Pennsylvania State University Press, University Park, PA, 1997.

GOVERNMENT PUBLICATIONS

A National Security Strategy For A New Century, The White House, October 1998.

Air Campaign Planning Handbook, Joint Doctrine Air Campaign Course, College of Aerospace Doctrine, Research and Education (CADRE), Air University, Maxwell AFB, AL, July 1998.

AF DD 2, *Organization and Employment of Aerospace Power*, Headquarters, US Air Force, Washington, DC, 1998.

AF DD 2-1.2, *Strategic Attack*, Headquarters, US Air Force, Washington, DC, 20 May 1998.

AFP 14-210, *USAF Intelligence Targeting Guide*, Headquarters, US Air Force, XOI, Washington, DC, 20 February 1998.

FM 34-8-2, *Intelligence Officer's Handbook*, Headquarters, Department of the Army, Washington, DC, May 1998.

PERIODICALS

Bowens, Glenn, "Legal Issues in Peace Operations," *Parameters*, Winter 1998-99, 51-72.

Crosette, Dana, "U.S. More Isolated In U.N. On Keeping the Iraq Sanctions," *New York Times*, 12 January 1999, 1.

Editorial, "The Rationale For Air Strikes," *New York Times*, 24 March 1999.

Edmonds, David K., Lt Col, USAF, "In Search of High Ground: The Airpower Trinity and the Decisive Potential of Airpower," *Airpower Journal*, Spring 1998.

Elliott, Michael, Contreras, Joseph, and Barry, John, "Back to Battle Stations," *Newsweek*, December 1998 – January 1999, 44-48.

Fulghum, David A., "Military Chiefs Miffed by Lack of Oversight," *Aviation Week and Space Technology*, 12 October 1998, 22.

Hillen, Dr. John, "Peacekeeping at the Speed of Sound: The Relevancy of Airpower Doctrine in Operations Other Than War," *Airpower Journal*, Winter 1998, 6-16.

Kroesen, Frederick J., Gen, US Army (Ret), "Would You Really Rather Have Airpower?," *Army Magazine*, January 1999, 9.

- Landay, Jonathan S., "US Threatens Force: Why Now?", *Christian Science Monitor*, 15 October 1998.
- Liotta, P. H., and Simons, Anna, "Thicker Than Water? Kin, Religion, and Conflict in the Balkans," *Parameters*, Winter 1998-99, 11-29.
- Manwaring, Max G., "Peace and Stability Lessons from Bosnia," *Parameters*, Winter 1998-99, 28-38.
- May, Charles, Maj Gen, USAF (R), "B-1 Backbone: Let's Give This Bomber Its Due," *Armed Forces Journal International*, September 1997, 44-48.
- McConnell, Mitch, "Independence For Kosovo," *Washington Post*, 22 January 1999, 35.
- Miller, Judith, "The Secretary General Offers Implicit Endorsement Of Raids," *New York Times*, 25 March 1999, 1.
- Milne, Seumas and Norton-Taylor, Richard, "Air-Strike Diplomacy Ups The Odds," *London Guardian*, 14 October 1998.
- Newman, Richard J., "Bombs Over Baghdad," *U.S. News and World Report*, December 28, 1998 / January 4, 1999, 32-38.
- O'Hanlon, Michael, "Should Serbia Be Scared?," *New York Times*, 23 March 1999, 1.
- Owen, Robert C., Col, USAF, "The Balkan Air Campaign Study: Part 1," *Airpower Journal*, Summer 1997 [publication on-line]; accessed at <http://www.au.af.mil>.
- Owen, Robert C., Col, USAF, "The Balkan Air Campaign Study: Part 2" *Airpower Journal*, Fall 1997 [publication on-line]; accessed at <http://www.au.af.mil>.
- Pape, Robert A., "The Limits of Precision Guided Air Power," *Security Studies*, Winter 1997/98, 93-114.
- Pape, Robert A., "The Air Force Strikes Back: A Reply to Barry Watts and John Warden," *Security Studies*, Winter 1997/98, 191-214.
- Peceny, Mark, and Sanchez-Terry, Shannon, "Liberal Interventionism in Bosnia," *The Journal of Conflict Studies*, Spring 1998, 5-26.
- Peterson, Scott, and Liaison, Gamma, "What Good Did It Do?," *Time*, December 28, 1998 – January 4, 1999, 68-73.
- Priest, Dana, "U.S. Fires Missiles At Iraqi Jets In 'No-Fly' Zone," *Washington Post*, 6 January 1999, 1.
- Smucker, Philip, "Serbian Gunners Reluctant To Take On NATO Forces," *Washington Times*, 23 February 1999, 1.
- Tirpak, John A., "Brilliant Weapons," *Air Force Magazine*, February 1998, 48-53.
- Trueheart, Charles, "U.S. Adds New Facet To Tough Global Issue," *Washington Post*, 23 February 1999, 13.
- Wall, Robert, "The Devastating Impact of Sensor Fused Weapons," *Air Force Magazine*, March 1998, 28-31.

Walker, Scott, Maj, USAF, "A Unified Theory of Coercive Airpower,"
Airpower Journal, Summer 1997, 70-79.

Walsh, Mark R., and Harwood, Michael J., "Complex Emergencies: Under New
Management," *Parameters*, Winter 1998-99, 39-50.

Willie, Curtis, "The Grey Zone: The United States and the Illusory Zone Between
Peacekeeping and Peace Enforcement," *The Journal of Conflict Studies*,
Spring 1998, 27-48.

Worth, Robert, "Clinton's Warriors: The Interventionists," *World Policy Journal*, Spring
1998.